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1. SWPPP REQUIREMENTS (3.0)

- 1.1. HAS THE SWPPP TEMPLATE BEEN PREPARED BY AN INDIVIDUAL THAT HAS THE FOLLOWING LICENSING AND/OR CERTIFICATIONS (3.1.1)?
 - ☑ YES (CHECK ALL THAT APPLY BELOW) OR ☐ NO
 - ☑ CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL
 - A TN LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE
 - ☐ HAS SUCCESSFULLY COMPLETED TDEC LEVEL II COURSE
- 1.2. DO THE EPSC PLANS INVOLVE STRUCTURAL DESIGN, HYDRAULIC, HYDROLOGIC OR OTHER ENGINEERING CALCULATIONS FOR EPSC STRUCTURAL MEASURES (E.G. SEDIMENT BASINS) (3.1.1)? YES ☐ NO ☒

IF YES. HAVE THE EPSC PLANS BEEN PREPARED. STAMPED AND CERTIFIED BY A TN LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT? ☐ YES ☐ NO

- 1.3. DO THE PROJECT STORMWATER OUTFALLS DIRECTLY DISCHARGE INTO THE FOLLOWING (5.4.1)? ☐ YES (CHECK ALL THAT APPLY BELOW) ☐ NO
 - ☐ WATERS WITH UNAVAILABLE PARAMETERS (303d FOR SILTATION OR HABITAT ALTERATION)

IF YES TO SECTION 1.3, HAS THE SWPPP TEMPLATE BEEN PREPARED BY AN INDIVIDUAL THAT HAS THE FOLLOWING LICENSING AND/OR CERTIFICATIONS (5.4.1.b)?

- ☑ YES (CHECK ALL THAT APPLY BELOW) ☐ NO
 - ☑ CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL
 - ☐ A TN LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT
 - ☐ HAS SUCCESSFULLY COMPLETED TDEC LEVEL II COURSE

2. SITE DESCRIPTION (3.5.1)

- 2.1. PROJECT LIMITS (3.5.1.h): REFER TO TITLE SHEET
- 2.2. PROJECT DESCRIPTION (3.5.1.a):

TITLE: S.R.16 (US 41A); FROM WEST OF JENKINS ROAD TO S.R.276 (THOMPSON CREEK RD.) COUNTY: BEDFORD

PIN: 100352.02

- 2.3. SITE MAP(S) (2.6.2.): REFER TO TITLE SHEET
- 2.4. DESCRIPTION OF EXISTING SITE TOPOGRAPHY (3.5.1.d): REFER TO EXISTING CONTOURS SHEET(S) <u>45A - 45R</u>, DRAINAGE MAP SHEET(S) <u>\\31 - \\</u> 32, USGS QUAD MAP, AND THE OUTFALL TABLE IN SECTION 17.
- 2.5. MAJOR SOIL DISTURBING ACTIVITIES (3.5.1.b) (CHECK ALL THAT APPLY):
 - □ CLEARING AND GRUBBING

- □ EXCAVATION
- ☑ CUTTING AND FILLING
- ☑ FINAL GRADING AND SHAPING
- ☑ UTILITIES
- ☐ OTHER (DESCRIBE): ___
- 2.6. TOTAL PROJECT AREA (3.5.1.c): 138.88 ACRES
- 2.7. TOTAL AREA TO BE DISTURBED (3.5.1.c): 110.63 ACRES
- 2.8. NO MORE THAN 50 ACRES OF ACTIVE SOIL DISTURBANCE IS ALLOWED AT ANY TIME DURING THE CONSTRUCTION OF THE PROJECT.
- 2.9. ARE THERE ANY SEASONAL LIMITATIONS ON WORK? ☐ YES ☒ NO IF YES, LIST THE CORRESPONDING PLAN SHEET:
- 2.10. WAS ROW FINALIZED PRIOR TO FEBRUARY 1, 2010 (4.1.2.2)?

___ (DATE) 🛛 NO

IF ROW WAS FINALIZED PRIOR TO FEBRUARY 1, 2010, THIS PROJECT IS CONSIDERED A PRE-APPROVED SITE (4.1.2.2)

2.11. SOIL PROPERTIES (3.5.1.f) (4.1.1).

SOIL PROPERTIES FOR THE PRIMARY SOILS ARE LISTED IN THE TABLE

SOIL PROPERTIES								
PRIMARY SOIL NAME	HSG	% OF SITE	ERODIBILITY (k value)					
ARRINGTON SILT LOAM	В	2.5	0.37					
ASHWOOD-MIMOSA ROCK OUTCROP	D	20.6	0.32					
BARFIELD-ROCK OUTCROP COMPLEX	D	3.5	0.28					
BRAXTON SILT LOAM	В	6.0	0.37					
COLBERT SILT LOAM	D	3.2	0.43					
DELLROSE GRAVELLY SILT LOAM	В	1.3	0.24					
HARPETH SILT LOAM	В	16.7	0.43					
LYNNVILLE SILT LOAM	С	0.9	0.37					
MIMOSA SILT LOAM	С	22.3	0.37					
MIMOSA-ASHWOOD COMPLEX	С	19.3	0.37					
TALBOTT SILT LOAM	С	1.7	0.43					
TALBOTT-ROCK OUTCROP	С	2.0	0.43					

- 2.12. IS ACID PRODUCING ROCK (APR) (i.e. PYRITE) LOCATED WITHIN THE PROJECT LIMITS? ☐ YES ☐ NO
 - 2.12.1. IF YES TO SECTION 2.13. HAVE APR LOCATIONS BEEN IDENTIFIED WITHIN THE CONSTRUCTION PLANS AND/OR THE GEOTECHNICAL REPORT? ☐ YES ☐ NO; AND
 - 2.12.2. IF YES TO SECTION 2.12.1, HAS A SPECIAL HANDLING PLAN AND/OR ADAPTIVE MANAGEMENT PLAN (AMP) BEEN PREPARED FOR THE PROJECT? ☐YES ☐ NO ☐ N/A (TDOT SP107L WILL BE APPLIED.)
- 2.13. PROJECT RUNOFF COEFFICIENTS AND AREA PERCENTAGES (3.5.1.g).

RUNOFF COEFFICIENTS FOR EXISTING CONDITIONS									
AREA TYPE	RUNOFF CN	C FACTOR							
IMPERVIOUS	25.4	18.3	98						
PERVIOUS	80								
WEIGHTED CURVE	C-FACTOR =	83							

TYPE	YEAR	PROJECT NO.	SHEET!
R.O.W.	2015	02005-2245-14	607
CONST.	2017	NHE-16 (54)	S-1

RUNOFF COEFFICIENTS FOR POST-CONSTRUCTION CONDITIONS										
AREA TYPE AREA(AC) PERCENTAGE OF TOTAL AREA (%) RUNOFF C FACTOR										
IMPERVIOUS	49.09	35.3	98							
PERVIOUS	80									
WEIGHTED CURVE NUMBER OR C-FACTOR = 86										

3. ORDER OF CONSTRUCTION ACTIVITIES (3.5.1.b, 3.5.2.a)

CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO: MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL AND MINIMIZE SOIL COMPACTION. NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR'S PLAN FOR THE STAGING OF THEIR OPERATIONS, INCLUDING THE PLAN FOR STAGING OF TEMPORARY AND PERMANENT EPSC MEASURES HAS BEEN ACCEPTED BY THE ENGINEER. THE CONTRACTOR'S EPSC PLAN SHALL INCORPORATE AND SUPPLEMENT, AS ACCEPTABLE, THE ORDER OF CONSTRUCTION ACTIVITIES AND THE BASIC EPSC DEVICES DEPICTED ON THE EPSC PLAN CONTAINED WITHIN THE APPROVED SWPPP

- 3.1. SPECIAL SEQUENCING REQUIREMENTS (SEE SHEETS 45A 45R3)
- 3.2. INSTALL STABILIZED CONSTRUCTION EXITS.
- 3.3. INSTALL PERIMETER PROTECTION WHERE RUNOFF SHEET FLOWS FROM
- 3.4. INSTALL INITIAL EPSC MEASURES BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CULVERT OR BRIDGE CONSTRUCTION, CUTTING FILLING, OR ANY OTHER EARTHWORK OCCURS, EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES.
- 3.5. PERFORM CLEARING AND GRUBBING (NOT MORE THAN 14 DAYS PRIOR TO GRADING OR EARTH-MOVING. REFER TO THE STABILIZATION PRACTICES
- 3.6. REMOVE AND STORE TOPSOIL
- 3.7. STABILIZE DISTURBED AREAS WITHIN 14 DAYS OF COMPLETING ANY STAGE AND/OR PHASE OF ACTIVITY.
- 3.8. INSTALL UTILITIES, STORM SEWERS, CULVERTS.
- 3.9. INSTALL INLET AND CULVERT PROTECTION ONCE STRUCTURES ARE IN PLACE AND CAPABLE OF INTERCEPTING FLOW.
- 3.10. PERFORM FINAL GRADING AND INSTALL BASE STONE.
- 3.11. COMPLETE FINAL PAVING AND SEALING OF CONCRETE.
- 3.12. INSTALL TRAFFIC CONTROL AND PROTECTION DEVICES.
- 3.13. COMPLETE FINAL STABILIZATION (TOPSOIL, SEEDING, MULCH, EROSION CONTROL BLANKET, SOD, ETC.)
- 3.14, REMOVE TEMPORARY EROSION CONTROLS AND ACCUMULATED SEDIMENT FROM AREAS THAT HAVE ESTABLISHED AT LEAST 70 PERCENT UNIFORM PERMANENT VEGETATIVE COVER
- 3.15. RE-STABILIZE AREAS DISTURBED BY REMOVAL ACTIVITIES.

4. STREAM, OUTFALL, WETLAND, TMDL AND ECOLOGY INFORMATION

- 4.1. STREAM INFORMATION (3.5.1.j, 3.5.1.k)
 - 4.1.1. WILL CONSTRUCTION AND/OR EROSION PREVENTION AND SEDIMENT CONTROLS IMPACT ANY STREAMS WITHIN THE PROJECT LIMITS? ☑ YES ☐ NO

IF YES, THE IMPACT(S) HAVE BEEN INCLUDED IN THE TOTAL PROJECT IMPACTS AND HAVE BEEN INCLUDED IN THE WATER QUALITY PERMITS.

HAVE ANY OF THE RECEIVING STATE WATERS LESS THAN OR EQUAL TO 1 FLOW MILE DOWN GRADIENT OF THE PROJECT LIMITS BEEN CLASSIFIED BY TDEC AS FOLLOWS (CHECK ALL THAT

☐ 303d WITH UNAVAILABLE PARAMETERS FOR SILTATION

- ☐ 303d WITH UNAVAILABLE PARAMETERS FOR HABITAT ALTERATION
- EXCEPTIONAL TENNESSEE WATERS (ETW)

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

4.1.3. RECEIVING WATERS OF THE STATE (3.5.1.k).

RECEIVING WATERS OF THE STATE INFORMATION									
TDOT STATE WATER LABEL FROM EBR	NAME OF RECEIVING STATE WATER	303d WITH UNAVAILABLE PARAMETERS FOR SILTATION OR HABITAT ALTERATION (YES OR NO)	ETW (YES OR NO)	LOCATED WITHIN PROJECT LIMITS (YES OR NO)	LOCATED WITHIN ≤ 1 FLOW MILE DOWN GRADIENT OF PROJECT LIMITS (YES OR NO)				
STR-1	UNNAMED TRIBUTARY TO DUCK RIVER	NO	NO	YES	YES				
STR-2	UNNAMED TRIBUTARY TO DUCK RIVER	NO	NO	YES	YES				
STR-3	UNNAMED TRIBUTARY TO DUCK RIVER	NO	NO	YES	YES				
STR-4	UNNAMED TRIBUTARY TO THOMPSON CREEK	NO	NO	YES	YES				
STR-4A	UNNAMED TRIBUTARY TO THOMPSON CREEK	NO	NO	YES	YES				
STR-5	THOMPSON CREEK	NO	NO	YES	YES				
STR-5A	UNNAMED TRIBUTARY TO THOMPSON CREEK	NO	NO	YES	YES				
TN06040002 027_2000	DUCK RIVER	YES	YES	NO	YES				

4.1.4. ARE THERE ANY WATER QUALITY RIPARIAN BUFFER ZONES REQUIRED FOR WATERS OF THE STATE? (4.1.2, 5.4.2)

□ YES ☒ NO

BUFFER ZONE REQUIREMENTS ARE NOT REQUIRED FOR PRE-APPROVED SITES (4.1.2.2.)

IF YES, THEY HAVE BEEN INCLUDED ON PLAN SHEET(S) ___ IF YES, CHECK THE APPROPRIATE BOX BELOW FOR SIZE OF BUFFER

☐ 60-FEET FOR WATERS WITH UNAVAILABLE PARAMETERS AND EXCEPTIONAL TENNESSEE WATERS (AVERAGE WIDTH PER SIDE WITH A MINIMUM OF 30-FEET).

A 60 FOOT NATURAL WATER QUALITY RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STATE STREAM WITH THIS DESIGNATION SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE DURING CONSTRUCTION ACTIVITIES AT THE SITE. THE 60 FOOT CRITERION FOR THE WIDTH OF THE BUFFER ZONE CAN BE ESTABLISHED ON AN AVERAGE WIDTH BASIS AT A PROJECT, AS LONG AS THE MINIMUM WIDTH OF THE BUFFER ZONE IS MORE THAN 30 FEET AT ANY MEASURED LOCATION. IF THE CONSTRUCTION SITE ENCOMPASSES BOTH SIDES OF A STREAM, BUFFER AVERAGING CAN BE APPLIED TO BOTH SIDES, BUT MUST BE APPLIED INDEPENDENTLY.

☐ 30-FEET FOR ALL OTHER STREAMS (AVERAGE WIDTH PER SIDE WITH A MINIMUM OF 15-FEET).

A 30 FOOT NATURAL WATER QUALITY RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STATE STREAM SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE DURING CONSTRUCTION ACTIVITIES AT THE SITE. THE 30 FOOT CRITERION FOR THE WIDTH OF THE BUFFER ZONE CAN BE ESTABLISHED ON AN AVERAGE WIDTH BASIS AT A PROJECT, AS LONG AS THE MINIMUM WIDTH OF THE BUFFER

ZONE IS MORE THAN 15 FEET AT ANY MEASURED LOCATION. IF THE CONSTRUCTION SITE ENCOMPASSES BOTH SIDES OF A STREAM, BUFFER AVERAGING CAN BE APPLIED TO BOTH SIDES. BUT MUST BE APPLIED INDEPENDENTLY

- 4.1.5. ARE THERE ANY WATER QUALITY RIPARIAN BUFFER ZONES NOT REQUIRED FOR STATE WATERS DUE TO A TDEC ARAP? (9.0)
- 4.1.6. ARE THERE WATER QUALITY RIPARIAN BUFFER ZONE EXEMPTIONS? (4.1.2.1) ☐ YES ☒ NO IF YES, EXISTING CONDITIONS DESCRIPTION:
- 4.1.7. EVERY ATTEMPT SHOULD BE MADE FOR CONSTRUCTION ACTIVITIES TO NOT TAKE PLACE WITHIN THE WATER QUALITY RIPARIAN BUFFER ZONE AND FOR EXISTING FORESTED AREAS TO BE PRESERVED. (5.4.2.)
- 4.1.8. BECAUSE OF HEAVY SEDIMENT LOAD ASSOCIATED WITH CONSTRUCTION SITE RUNOFF, WATER QUALITY RIPARIAN BUFFER ZONES ARE NOT SEDIMENT CONTROL MEASURES AND SHOULD NOT BE RELIED UPON AS PRIMARY SEDIMENT CONTROL MEASURES. THE WATER QUALITY RIPARIAN BUFFER ZONE SHALL BE ESTABLISHED BETWEEN THE TOP OF THE STREAM BANK AND THE DISTURBED CONSTRUCTION AREA.
- 4.1.9. WHERE IT IS NOT PRACTICABLE TO MAINTAIN A FULL WATER QUALITY RIPARIAN BUFFER, BEST MANAGEMENT PRACTICES (BMPS) PROVIDING EQUIVALENT PROTECTION AS THE NATURAL RIPARIAN ZONE MUST BE USED. A JUSTIFICATION FOR USE AND DESIGN EQUIVALENCY SHALL BE DOCUMENTED WITHIN THE SWPPP. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS SHALL REVIEW AND APPROVE THIS REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE SITE PROCEEDS. UNLESS PREVIOUSLY EXEMPT IN THE NPDES CGP. WHERE ISSUED. ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.
- 4.2. RECEIVING WATERS OF THE UNITED STATES (WOTUS) (EPHEMERAL)

WILL CONSTRUCTION AND/OR EROSION AND SEDIMENT CONTROLS IMPACT ANY WOTUS (EPHEMERAL)?

✓ YES

✓ NO

TDOT LOCATED WITHIN PROJECT LOCATED WITHIN 15-FT OF THE										
WOTUS	LIMITS	PROJECT LIMITS								
LABEL	(YES OR NO)	(YES OR NO)								
WWC-1/EPH-1	YES	YES								
WWC-2/EPH-2	YES	YES								
WWC-3/EPH-3	YES	YES								
WWC-4/EPH-4	YES	YES								
WWC-5/EPH-5	YES	YES								
WWC-6/EPH-6	YES	YES								
WWC-7/EPH-7	YES	YES								
WWC-8/EPH-8	YES	YES								
WWC-9/EPH-9	YES	YES								
WWC-10/EPH-10	YES	YES								
WWC-11/EPH-11	YES	YES								
WWC-13/EPH-13	YES	YES								
WWC-14/EPH-14	YES	YES								
WWC-15/EPH-15	YES	YES								
WWC-17/EPH-17	YES	YES								
WWC-18/EPH-18	YES	YES								

4.2.1. ARE WATER QUALITY RIPARIAN BUFFER ZONES REQUIRED FOR WOTUS (4.1.2)? ⊠ YES ☐ NO

IF YES, A 15 FOOT NATURAL WATER QUALITY RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING EPHEMERAL STREAM IDENTIFIED AS A WOTUS (EPHEMERAL) BY THE U.S. ARMY CORPS OF ENGINEERS (USACE) OR THE ENVIRONMENTAL PROTECTION AGENCY SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE DURING CONSTRUCTION ACTIVITIES AT THE SITE.

IF YES, THEY HAVE BEEN INCLUDED ON PLAN SHEET(S) 45M. 45M1,45M2, 45M3.

4.2.2. ARE THERE ANY WATER QUALITY RIPARIAN BUFFER ZONES NOT REQUIRED FOR WOTUS (EPHEMERAL) DUE TO A USACE PERMIT? ⊠ YES □ NO

4.3. OUTFALL INFORMATION

- 4.3.1. OUTFALL TABLE (3.5.1.e). SEE SWPPP SHEET S-8 FOR OUTFALL
- 4.3.2. HAVE ALL OUTFALLS BEEN LABELED ON THE EPSC PLAN SHEETS (3.5.1.h)? ⊠ YES □ NO
- 4.3.3. HAVE ALL OUTFALLS BEEN LABELED ON A USGS TOPOGRAPHIC MAP INCLUDED IN THE "DOCUMENTATION AND PERMITS" BINDER (2.6.2)? ⊠YES □ NO
- 4.3.4. WHERE POSSIBLE, HAS NON-PROJECT RUN-ON BEEN DIVERTED AROUND OR THROUGH THE PROJECT TO ELIMINATE CONTACT WITH DISTURBED AREAS OF THE PROJECT AND SEPARATE IT FROM PROJECT RUN-OFF THEREBY REDUCING THE DRAINAGE AREA OF TO THE OUTFALLS IN THIS AREA?

- 4.3.5. ARE EQUIVALENT MEASURES BEING SUBSTITUTED FOR A SEDIMENT BASIN(S)? ☐ YES ☒ NO ☐ N/A
- A SEDIMENT BASIN OR EQUIVALENT MEASURE(S) WILL BE PROVIDED FOR ANY OUTFALL IN A DRAINAGE AREA:

OF TEN ACRES OR MORE FOR AN OUTFALL(S) THAT DOES NOT DISCHARGE TO A STATE STREAM WITH UNAVAILABLE PARAMETERS OR EXCEPTIONAL TENNESSEE WATERS. A TEMPORARY (OR PERMANENT) SEDIMENT BASIN OR EQUIVALENT CONTROL MEASURES THAT PROVIDES STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A MINIMUM 2-YEAR/ 24-HOUR STORM EVENT, SHALL BE PROVIDED UNTIL FINAL STABILIZATION OF THE SITE. (3.5.3.3)

OF FIVE ACRES OR MORE FOR AN OUTFALL(S) THAT DISCHARGES TO A STATE STREAM WITH UNAVAILABLE PARAMETERS OR EXCEPTIONAL TENNESSEE WATERS. A TEMPORARY (OR PERMANENT) SEDIMENT BASIN THAT PROVIDES STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A 5-YEAR/ 24-HOUR STORM EVENT AND RUNOFF FROM FACH ACRE DRAINED OR EQUIVALENT CONTROL MEASURES. SHALL BE PROVIDED UNTIL FINAL STABILIZATION OF THE SITE. (5.4.1.a).

IN BOTH INSTANCES, THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS MAY BE CONTACTED TO REVIEW AND CONCUR WITH ANY REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE OUTFALL PROCEEDS.

4.4. WETLAND INFORMATION

WILL CONSTRUCTION AND/OR EROSION AND SEDIMENT CONTROLS IMPACT ANY WETLANDS? ☐ YES ☒ NO

IF YES, THE STRUCTURAL EPSC MEASURES HAVE BEEN INCLUDED IN THE TOTAL PROJECT IMPACTS AND IN THE WATER QUALITY PERMITS.

WETLAND INFORMATION								
TDOT WETLAND LABEL	FROM STATION LT OR RT	TO STATION LT OR RT	TEMPORARY IMPACTS (AC)	PERMANENT IMPACTS (AC)				
WTL-1	440+00 LT	476+00 LT	0.00	0.00				
WTL-2	526+50 LT	527+10 LT	0.00	0.00				

- 4.5. TOTAL MAXIMUM DAILY LOADS (TMDL) INFORMATION (3.5.10)
 - 4.5.1. IS THIS PROJECT LOCATED IN A HUC-8 WATERSHED THAT MAINTAINS AN EPA APPROVED TMDL FOR SILTATION AND HABITAT ALTERATION?

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

PROJECT NO. 02005-2245-14

NHE-16 (54)

CONST 2017



 TYPE
 YEAR
 PROJECT NO.
 SHEET NO.

 R.O.W.
 2015
 02005-2245-14
 CONST.
 2017
 NHE-16 (54)
 S-3

- 4.5.2. IF YES, IS THIS PROJECT LOCATED WITHIN A HUC-12 SUBWATERSHED WITH A WASTE LOAD ALLOCATION (WLA)?

 ⊠ YES □ NO
- 4.5.3. IF YES, DOES THE PROJECT HAVE A DIRECT DISCHARGE TO A 303(d) LISTED STREAM FOR SILTATION OR HABITAT ALTERATION?

 ☐ YES ☒ NO
- 4.5.4. IF YES, HAS A SUMMARY OF THE CONSULTATION LETTER BEEN SUBMITTED/RECEIVED?

☐ YES ☐ NO

4.6. ECOLOGY INFORMATION (3.5.5.e)

DOES THE TDOT ENVIRONMENTAL BOUNDARIES REPORT SPECIFY SPECIAL NOTES TO BE ADDED TO THE PLAN SHEETS?

] YES ⊠ NC

IF YES, THEY HAVE BEEN INCLUDED ON PLAN SHEET(S) _____.

4.7. ENVIRONMENTAL COMMITMENTS

IF YES, THEY HAVE BEEN INCLUDED ON PLAN SHEET(S) 1D.

5. EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES (3.5.3)

- 5.1. EPSC MEASURES MUST BE DESIGNED, INSTALLED AND MAINTAINED TO CONTROL STORMWATER VOLUME AND VELOCITY WITHIN THE SITE TO MINIMIZE EROSION (4.1.1).
- 5.2. EPSC MEASURES MUST CONTROL STORMWATER DISCHARGES, INCLUDING BOTH PEAK FLOWS AND TOTAL STORMWATER VOLUME, TO MINIMIZE EROSION AT OUTLETS, STREAM CHANNELS, AND STREAM BANKS. (4.1.1)
- 5.3. HAVE THE CONTROL MEASURES BEEN DESIGNED PER THE SIZE AND SLOPE OF THE DISTURBED DRAINAGE AREA (3.5.3.3)?
- 5.4. THE CONTROL MEASURES HAVE, AT A MINIMUM, BEEN DESIGNED FOR THE 5-YEAR, 24 HOUR STORM EVENT (3.5.3.3, 5.4.1.a).
- 5.5. ARE THE LIMITS OF DISTURBANCE CLEARLY MARKED ON THE EPSC PLANS (3.5.1.h)? \boxtimes YES \square NO
- 5.6. AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.
- 5.7. UNLESS OTHERWISE NOTED IN THE PLANS, THE CONTRACTOR SHALL NOT CLEAR/DISTURB ANY AREA BEYOND 15 FEET FROM SLOPE LINES OR ROW/EASEMENT LINE, WHICHEVER IS LESSER.
- 5.8. CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. EXISTING VEGETATION, INCLUDING STREAM AND WETLAND BUFFERS (UNLESS PERMITTED), SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.
- 5.9. HAVE STAGED EPSC PLANS BEEN PREPARED FOR THE PROJECT (3.5.2)?
 YES ☒ NO ☐ (IF YES, CHECK ONE BELOW)
 - 5.9.1. PROJECT DISTURBED AREA IS THAN LESS THAN 5 ACRES (MINIMUM OF TWO STAGES OF EPSC PLANS)
 - 5.9.2. PROJECT DISTURBED AREA IS GREATER THAN 5 ACRES (MINIMUM OF THREE STAGES OF EPSC PLANS)
- 5.10. STEEP SLOPES ARE DEFINED AS A NATURAL OR CREATED SLOPE OF 35% GRADE OR GREATER REGARDLESS OF HEIGHT. HAVE STEEP SLOPES BEEN MINIMALLY DISTURBED AND/OR PROTECTED BY CONVEYING RUNOFF NON-EROSIVELY AROUND OR OVER THE SLOPE (3.5.3.2) (10. "STEEP SLOPE")? ☐ YES ☒ NO ☐ N/A
- 5.11. THE STRUCTURAL EPSC MEASURES HAVE BEEN INCLUDED IN THE TOTAL PROJECT IMPACTS AND HAVE BEEN INCLUDED IN THE AQUATIC RESOURCE ALTERATION (ARAP) PERMIT OR SECTION 401 CERTIFICATION (3.5.1.j). REFER TO THE LIST OF APPLICABLE ENVIRONMENTAL PERMITS LOCATED ON SWPPP SHEET <u>S-7</u>. ALL PERMITS WILL BE MAINTAINED ON SITE WITHIN THE "DOCUMENTATION AND PERMITS" BINDER.

- 5.12. THE EPSC CONTROL MEASURES LISTED IN THE QUANTITIES TABLE ON SHEET 2 HAVE BEEN SELECTED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES (3.5.3.1.b).
- 5.13. EPSC MEASURES SHALL BE INSTALLED PER TDOT STANDARDS (i.e. STANDARD DRAWINGS) AND SHALL BE FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS
- 5.14. EPSC MEASURES WILL NOT BE INSTALLED WITHIN A STREAM WITHOUT FIRST OBTAINING APPROVAL FROM THE PERMITS SECTION.
- 5.15. TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REINSTALLED AT THE END OF THE WORKDAY OR BEFORE A PRECIPITATION EVENT.
- 5.16. EPSC MEASURES LOCATED IN WOTUS (EPHEMERAL STREAMS) MUST BE CONSIDERED TEMPORARY AND SHALL BE REMOVED AT THE END OF CONSTRUCTION
- 5.17. THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT OFF THE PROJECT LIMITS (E.G. R.O.W., EASEMENTS, ETC.), INTO WATERS OF THE STATE/U.S., OR ONTO ROADWAYS USED BY THE PUBLIC.

 IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFFICE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED TO A LEVEL SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE AND HAS COLLECTED IN A STREET MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS) ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT. SEDIMENT THAT MIGRATES INTO WATERS OF THE STATE/US SHALL NOT BE REMOVED WITHOUT GUIDANCE FROM TDOT ENVIRONMENTAL PERSONNEL.
- 5.18. OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION EXIT (A POINT OF ENTRANCE/EXIT TO THE CONSTRUCTION PROJECT) SHALL BE PROVIDED TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.
- 5.19. THE QUANTITIES REQUIRED FOR STABILIZED CONSTRUCTION EXITS PER TDOT STANDARDS HAVE BEEN SPECIFIED ON SHEET 2 (3.5.3.1.n).
- 5.20. DISCHARGES FROM DEWATERING ACTIVITIES ARE PROHIBITED UNLESS MANAGED BY APPROPRIATE CONTROLS THAT PROVIDE THE LEVEL OF TREATMENT (FILTRATION) NECESSARY TO COMPLY WITH PERMIT REQUIREMENTS. (4.1.4).
- 5.21. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED PER THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE OR WELL VEGETATED OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT.
- 5.22. DISCHARGES FROM SEDIMENT BASINS AND IMPOUNDMENTS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE, WELL- VEGETATED AND/OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. (4.1.7).
- 5.23. THE DEWATERING OF WORK AREAS, TRENCHES, FOUNDATIONS, EXCAVATIONS, ETC. THAT HAVE COLLECTED STORMWATER, WATER FROM VEHICLE WASH AREAS, OR GROUNDWATER SHALL BE EITHER HELD IN SETTLING BASINS OR TREATED BY FILTRATION AND/OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE. ALL CHEMICAL TREATMENTS MUST BE APPLIED PER SECTION 6 FLOCCULANTS.
- 5.24. WATER DISCHARGED FROM DEWATERING ACTIVITIES SHALL NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITHIN THE RECEIVING NATURAL RESOURCE. WATER MUST BE HELD WITHIN SETTLING BASINS UNTIL IT IS AT LEAST AS CLEAR AS THE RECEIVING WATERS.
- 5.25. DEWATERING STRUCTURES, SEDIMENT FILTER BAGS, SEDIMENT BASINS AND TRAPS SHALL NOT BE LOCATED CLOSER THAN 30 FEET (60 FEET DESIRABLE VEGETATIVE BUFFER) FOR WATERS WITH UNAVAILABLE PARAMETERS AND EXCEPTIONAL TENNESSEE WATERS AND 15 FEET (30 FEET DESIRABLE VEGETATIVE BUFFER) FOR ALL OTHER FEATURES FROM THE TOP BANK OF A STREAM, WOTUS (EPHEMERAL), WETLAND OR OTHER NATURAL RESOURCE AND SHALL BE PROPERLY DESIGNED PER THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED.
- 5.26. STABILIZATION PRACTICES: PRE-CONSTRUCTION VEGETATIVE COVER WILL NOT BE DESTROYED, REMOVED OR DISTURBED MORE THAN 14 DAYS

PRIOR TO GRADING OR EARTH MOVING UNLESS THE AREA WILL BE SEEDED AND/OR MULCHED OR OTHER TEMPORARY COVER IS INSTALLED (3,5,3,1,h).

- 5.27. STABILIZATION MEASURES WILL BE INITIATED AS SOON AS POSSIBLE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY OR PERMANENT STABILIZATION WILL BE COMPLETED WITHIN 14 DAYS AFTER ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED IN THAT AREA. PERMANENT STABILIZATION WILL REPLACE TEMPORARY MEASURES AS SOON AS PRACTICABLE (3.5.3.2).
- 5.28. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS. UNPACKED GRAVEL CONTAINING FINES (SILT AND CLAY SIZED PARTICLES) OR CRUSHER-RUN WILL NOT BE CONSIDERED A NON-ERODIBLE SURFACE
- 5.29. DELAYING THE PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED, IF POSSIBLE.
- 5.30. A SOIL ANALYSIS SHALL BE PERFORMED PRIOR TO THE APPLICATION OF FERTILIZERS TO ANY PORTION OF THE STE. SOILS SHOULD BE ANALYZED FOR pH, BUFFER VALUE, PHOSPHOROUS, POTASSIUM, CALCIUM AND MAGNESIUM. SOIL SAMPLES SHOULD BE REPRESENTATIVE OF THE AREA FOR WHICH FERTILIZER WILL BE APPLIED. SAMPLE TYPE SHOULD BE COLLECTED AND ANALYZED IN ACCORDANCE WITH THE UT EXTENSION "SOIL TESTING" BROCHURE PB1061. (4.1.5.)
- 5.31. FERTILIZERS SHALL BE APPLIED ONLY IN THE AMOUNTS SPECIFIED FROM THE ANALYSES. ONCE APPLIED, FERTILIZERS SHALL BE WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORMWATER.
- 5.32. STEEP SLOPES SHALL BE TEMPORARILY STABILIZED NOT LATER THAN 7 DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED. (3.5.3.2).

6. FLOCCULANTS (3.5.3.1.b)

IS ADDITIONAL PHYSICAL OR CHEMICAL TREATMENT OF STORMWATER RUNOFF NECESSARY (5.4.1.a)? $\ \square$ YES $\ \boxtimes$ NO

IF YES THE FOLLOWING NOTES APPLY:

- 6.1. POLYACRYLAMIDES (PAM) SHALL BE OF THE ANIONIC OR NEUTRALLY CHARGED TYPE ONLY. PAM REQUIREMENTS ARE AS FOLLOWS:
 - 6.1.1. CATIONIC PAM IS NOT ALLOWED BECAUSE OF ITS TOXICITY TO FISH AND AQUATIC LIFE.
 - 6.1.2. ANIONIC AND NEUTRALLY CHARGED PAM SHALL MEET THE EPA AND FDA ACRYLAMIDE MONOMER LIMITS OF EQUAL TO OR LESS THAN 0.05% BY WEIGHT ACRYLAMIDE MONOMER.
 - 6.1.3. ANIONIC AND NEUTRALLY CHARGED PAM SHALL HAVE A DENSITY OF 10% TO 55% BY WEIGHT AND A MOLECULAR WEIGHT OF 16 TO 24 MG/MOLES.
 - 6.1.4. PAM MIXTURES SHALL BE NON-COMBUSTIBLE.
 - 6.1.5. PAM SHALL CONTAIN ONLY MANUFACTURER-RECOMMENDED ADDITIVES.
- 6.2. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE RESEARCHED, APPLIED IN ACCORDANCE WITH MANUFACTURE'S GUIDELINES AND FULLY DESCRIBED ON THE EPSC PLANS (3.5.3.1.b).
- 6.3. FLOCCULANTS SHALL BE HANDLED IN ACCORDANCE WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) MATERIAL SAFETY DATA SHEET (MSDS) REQUIREMENTS AND SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR THE SPECIFIED USE CONFORMING TO ALL FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS.
- 6.4. ALL VENDORS AND SUPPLIERS OF FLOCCULANTS SHALL PRESENT OR SUPPLY A WRITTEN TOXICITY REPORT FOR BOTH ACUTE AND CHRONIC TOXICITY TESTS WHICH VERIFIES THAT THE FLOCCULANT EXHIBITS ACCEPTABLE TOXICITY PARAMETERS WHICH MEET OR EXCEED THE EPA REQUIREMENTS FOR THE STATE AND FEDERAL WATER QUALITY STANDARDS. WHOLE EFFLUENT TESTING DOES NOT MEET THIS REQUIREMENT AS PRIMARY REACTIONS HAVE OCCURRED AND TOXIC POTENTIALS HAVE BEEN REDUCED.
- 6.5. DO NOT APPLY FLOCCULANTS DIRECTLY TO, OR WITHIN 60 FEET, OF ANY STREAMS, WETLANDS, OR OTHER NATURAL WATER RESOURCE LOCATED ON OR ADJACENT TO THE CONSTRUCTION SITE. DO NOT APPLY FLOCCULANTS DIRECTLY INTO WATERS CONTAINED WITHIN SEDIMENT PONDS OR TO SLOPES THAT PRODUCE RUNOFF DIRECTLY INTO A

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STREAM, WETLAND, OR OTHER NATURAL WATER RESOURCE. DO NOT APPLY FLOCCULANTS IMMEDIATELY AT A STORMWATER OUTFALL WHERE RUNOFF LEAVES THE PROJECT LIMITS.

- 6.6. BEFORE FLOCCULANTS CAN BE USED ON A CONSTRUCTION PROJECT, SITE-SPECIFIC SOIL SAMPLES MUST BE OBTAINED AND TESTED BY THE MANUFACTURER OR THEIR REPRESENTATIVE, TO IDENTIFY THE OPTIMUM FLOCCULANT TYPE AND APPLICATION RATE. SINCE FLOCCULANT EFFICACY IS HIGHLY DEPENDENT ON SOIL TYPE, SOIL SAMPLES WILL NEED TO BE OBTAINED FROM EACH SOIL HORIZON THAT WILL BE ACCESSED DURING EXCAVATION. FLOCCULANTS SHOULD BE APPLIED ON A CONSTRUCTION SITE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED APPLICATION OR DOSAGE RATE. APPLICATION METHOD SHALL ENSURE UNIFORM COVERAGE TO THE TARGET AREA. DO NOT APPLY EMULSION FORMS OF FLOCCULANTS DIRECTLY TO STORMWATER RUNOFF OR TO STREAMS, WETLANDS, OR OTHER WATER RESOURCES DUE TO SURFACTANT TOXICITY.
- 6.7. FLOCCULANT POWDER MAY BE APPLIED BY A HAND SPREADER OR A MECHANICAL SPREADER. IF APPROVED BY THE MANUFACTURER, FLOCCULANT MAY BE MIXED WITH DRY SILICA SAND, FERTILIZER, SEED, OR OTHER SOIL AMENDMENTS TO AID IN SPREADING. FLOCCULANTS MAY ALSO BE APPLIED WITH A WATER TRUCK OR AS PART OF HYDROSEEDING. APPLICATION METHOD SHALL ENSURE UNIFORM COVERAGE TO THE TARGET AREA
- 6.8. MANUFACTURER'S GUIDANCE SHOULD BE FOLLOWED FOR BLOCK, LOG AND SOCK SPACING CONFIGURATIONS. BEFORE FLOCCULANTS CAN BE USED ON A CONSTRUCTION PROJECT, SITE-SPECIFIC SOIL SAMPLES MUST BE OBTAINED AND TESTED BY THE MANUFACTURER OR THEIR REPRESENTATIVE, TO IDENTIFY THE OPTIMUM FLOCCULANT TYPE AND APPLICATION RATE. SINCE FLOCCULANT EFFICACY IS HIGHLY DEPENDENT ON SOIL TYPE, SOIL SAMPLES WILL NEED TO BE OBTAINED FROM EACH SOIL HORIZON THAT WILL BE ACCESSED DURING EXCAVATION. FLOCCULANTS SHOULD BE APPLIED ON A CONSTRUCTION SITE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED APPLICATION OR DOSAGE RATE.

7. UTILITY RELOCATION

ARE UTILITIES INCLUDED IN THE CONTRACT? ☐ YES ☐ NO

IF YES, THE FOLLOWING APPLY:

- 7.1. STORMWATER WHICH COLLECTS IN THE UTILITY TRENCH SHALL BE PUMPED INTO A DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND TREATED PRIOR TO DISCHARGE.
- 7.2. SILT FENCE SHALL BE INSTALLED ON THE DOWNGRADIENT SIDE OF STOCKPILED SOIL. ANY TRENCHING ACROSS WET WEATHER CONVEYANCES SHALL BE DONE DURING DRY CONDITIONS, REMOVED AND STABILIZED BY THE END OF THE WORK DAY.
- 7.3. UTILITY CROSSINGS IN ENVIRONMENTAL FEATURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH TDOT STANDARDS AND NO WORK SHALL BE CONDUCTED IN FLOWING WATERS, ENVIRONMENTAL PERMITS APPLY TO UTILITIES IN THIS PROJECT. THE STATE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE PERMITS.
- 7.4. IT IS THE RESPONSIBILITY OF THE STATE UTILITY CONTRACTOR TO PROTECT EXPOSED EARTH FROM EROSION AND TO PROVIDE FOR CONTAINMENT OF SEDIMENT THAT MAY RESULT FROM THEIR WORK. PRIOR TO BEGINNING WORK, ADEQUATE EPSC MEASURES MUST BE IN PLACE TO TRAP ANY SEDIMENT THAT MAY TRAVEL OFF-SITE IN THE EVENT OF RAIN. DURING THE PROGRESSION OF THEIR WORK, EXPOSED EARTH AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE TO PREVENT EROSION. AT NO TIME, SHALL EXPOSED EARTH RESULTING FROM THEIR OPERATIONS HAVE UNPROTECTED ACCESS TO FLOWING OFF-SITE AND ENTERING WATERS OF THE STATE/U.S.
- 7.5. FOR THE INSTALLATION OF BURIED UTILITIES (PIPES AND CABLES), TRENCHES SHALL BE BACKFILLED DAILY AS CONSTRUCTION PROCEEDS. BACKFILLED TRENCHES SHALL BE SEEDED AND MULCHED OR SODDED DAILY IF POSSIBLE, BUT NO LATER THAN FOURTEEN DAYS AFTER BEING BACKFILLED. ANY TEMPORARY SPOILS OF EXCAVATED EARTH SHALL BE LOCATED WITHIN TOOT EPSC MEASURES OR RECEIVE SEPARATE EPSC MEASURES. IF TRENCHES ARE NOT BACKFILLED OVERNIGHT, APPROPRIATE EPSC MEASURES WILL BE INSTALLED BY THE STATE UTILITY CONTRACTOR UNTIL THE TRENCH IS BACKFILLED.
- 7.6. IN REGARDS TO EPSC, TDEC REGULATIONS APPLY TO THE STATE UTILITY CONTRACTORS ON THIS PROJECT. THE STATE CONTRACTOR IS RESPONSIBLE FOR EPSC MEASURES RELATED TO UTILITY CONSTRUCTION INCLUDED IN THE STATE CONTRACT.

- 7.7. TRENCHES FORMED FOR THE INSTALLATION OF BURIED UTILITIES MAY CAUSE STORMWATER RUNOFF TO CONCENTRATE AT THE TRENCH LINE. ADDITIONAL EPSC MEASURES MAY BE REQUIRED TO BE INSTALLED AS APPROVED BY THE TDOT PROJECT ENGINEER.
- 7.8. FOR THE INSTALLATION OF UNDERGROUND UTILITIES OUTSIDE OF THE TDOT RIGHT-OF-WAY, EPSC MEASURES SHALL BE INSTALLED PRIOR TO CLEARING (TRENCHING AND ASSOCIATED BLASTING) IN THOSE AREAS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION AREA. THESE EPSC MEASURES SHALL REMAIN UNTIL THE BACKFILLED TRENCH IS STABILIZED WITH FINAL VEGETATIVE COVER.
- 7.9. THE UTILITY CONTRACTOR SHALL RESTORE ALL AFFECTED WET WEATHER CONVEYANCES TO THE EXISTING TOPOGRAPHIC CONDITIONS AS APPROVED BY THE TDOT RESPONSIBLE PARTY.
- 7.10. THE UTILITY CONTRACTOR WILL PROVIDE APPROPRIATE EPSC MEASURES TO REPLACE ONSITE EPSC MEASURES REMOVED TO FACILITATE THE INSTALLATION OF UTILITIES. REPLACEMENT OF EPSC MEASURES WILL BE COORDINATED WITH THE TDOT ENGINEER BEFORE COMMENCING WORK.
- 7.11. FOR UTILITY CROSSINGS THAT UTILIZE HORIZONTAL DIRECTIONAL DRILLING THE FOLLOWING SHALL APPLY:
 - 7.11.1. THE ENTRY AND EXIT POINTS SHALL BE AT LEAST 50 FEET FROM THE STREAM BANK OR WETLAND BOUNDARY.
 - 7.11.2. THE DEPTH OF BORE BELOW THE STREAMBED IS SUFFICIENT TO PREVENT RELEASE OF DRILLING FLUID, BASED ON THE PARENT
 - 7.11.3. A SITE-SPECIFIC CONTINGENCY AND CONTAINMENT PLAN FOR INADVERTENT RELEASE OF DRILLING FLUID SHALL BE ESTABLISHED PRIOR TO COMMENCEMENT OF WORK, THIS PLAN SHALL BE SUBMITTED TO THE TDOT PROJECT ENGINEER AND THE TDOT ENVIRONMENTAL DIVISION PERMITS AND/OR COMPLIANCE AND FIELD SERVICES OFFICE FOR REVIEW AND APPROVAL.

8. MAINTENANCE AND INSPECTION

- 8.1. INSPECTION PRACTICES (3.5.8)
 - 8.1.1. PROJECT EPSC INSPECTORS AND ENGINEERS (INCLUDING TDOT STAFF, CONSULTANTS AND CONTRACTOR STAFF) RESPONSIBLE FOR THE INSPECTION, IMPLEMENTATION, MAINTENANCE. AND/OR REPAIR OF EPSC MEASURES SHALL MEET ONE OF THE FOLLOWING REQUIREMENTS (3.5.8.1.):
 - 8.1.1.1. SUCCESSFULLY COMPLETED THE TDOT EPSC INSPECTIONS TRAINING AND ANY RECERTIFICATION COURSE AS REQUIRED.
 - 8.1.1.2. SUCCESSFULLY COMPLETED THE TDEC "LEVEL I FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL" COURSE AND ANY RECERTIFICATION COURSES AS REQUIRED.
 - 8.1.1.3. BE A CURRENT TN LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT.
 - 8.1.1.4. BE A CURRENT CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC).
 - 8.1.1.5. SUCCESSFULLY COMPLETED TDEC "LEVEL II DESIGN PRINCIPLES FOR EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE AND ANY RECERTIFICATION COURSE AS REQUIRED.
 - 8.1.2. THE TDOT CONSTRUCTION ENGINEER (OR THEIR DULY AUTHORIZED REPRESENTATIVE) AND THE CONTRACTOR'S SITE SUPERINTENDENT ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE TDOT CONSTRUCTION ENGINEER OR THEIR DULY AUTHORIZED REPRESENTATIVE SHALL COMPLETE THE EPSC INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT
 - 8.1.3. THE INSPECTOR SHALL CONDUCT PRE-CONSTRUCTION INSPECTIONS TO VERIFY AREAS THAT ARE NOT TO BE DISTURBED HAVE BEEN MARKED IN THE SWPPP AND IN THE FIELD BEFORE LAND DISTURBANCE ACTIVITIES BEGIN AND INITIAL MEASURES HAVE BEEN INSTALLED (10 "INSPECTOR") (3.5.1.0).
 - 8.1.4. EPSC CONTROLS SHALL BE INSPECTED TO VERIFY MEASURES HAVE BEEN INSTALLED AND MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS, SPECIFICATIONS, AND GOOD ENGINEERING PRACTICES. EPSC INSPECTIONS SHALL BE DOCUMENTED ON THE TDOT EPSC INSPECTION REPORT FORM

AND THE TDEC CONSTRUCTION STORMWATER INSPECTION CERTIFICATION (TWICE-WEEKLY INSPECTIONS) FORM.

- 8.1.5. OUTFALL POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING EROSION AND CONTROLLING SEDIMENT INCLUDING SIGNIFICANT IMPACTS TO SURROUNDING STATE WATERS, WOTUS (EPHEMERAL), WETLANDS, OTHER NATURAL RESOURCES AND ADJACENT PROPERTY OWNERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWN GRADIENT LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE ROADWAY SEDIMENT TRACKING.
- 8.1.6. INSPECTIONS WILL BE CONDUCTED AT LEAST TWICE EVERY CALENDAR WEEK AND AT LEAST 72 HOURS APART (3.5.8.2.a). A CALENDAR WEEK IS DEFINED AS SUNDAY THROUGH SATURDAY. QUALITY ASSURANCE INSPECTIONS OF TDOT EPSC, NPDES AND WATER QUALITY PERMIT REQUIREMENTS SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL DIVISION COMPLIANCE AND FIELD SERVICES OFFICE.
- 8.1.7. THE FREQUENCY OF EPSC INSPECTIONS MAY BE REDUCED TO ONCE A MONTH WHERE SITES OR PORTIONS OF SITES HAVE BEEN TEMPORARILY STABILIZED UNTIL CONSTRUCTION ACTIVITIES RESUME WITH WRITTEN NOTIFICATION BY THE TDOT REGIONAL ENGINEER TO TDEC NASHVILLE CENTRAL OFFICE AND SUBSEQUENT TDEC APPROVAL. WRITTEN NOTIFICATION MUST INCLUDE THE INTENT TO CHANGE FREQUENCY AND JUSTIFICATION (3.5.8.2.a).
- 8.1.8. ALL DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED, AREAS USED FOR MATERIAL STORAGE THAT ARE EXPOSED TO PRECIPITATION, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE, AND EACH OUTFALL WILL BE INSPECTED (3.5.8.2.b).
- 8.1.9. THE INSPECTOR WILL OVERSEE THE REQUIREMENTS OF OTHER CONSTRUCTION-RELATED WATER QUALITY PERMITS (I.E. TDEC ARAP, USACE SECTION 404, AND TVA SECTION 26a PERMITS) FOR CONSTRUCTION ACTIVITIES AROUND WATERS OF THE STATE (10 "INSPECTOR").
- 8.1.10. THE SWPPP WILL BE REVISED AS NECESSARY BASED ON THE RESULTS OF THE INSPECTION. REVISION(S) WILL BE RECORDED WITHIN 7 DAYS OF THE INSPECTION. REVISION(S) WILL BE IMPLEMENTED WITHIN 14 DAYS OF THE INSPECTION (3.5.8.2.e AND
- 8.1.11. DOCUMENTATION OF INSPECTIONS WILL BE MAINTAINED ON SITE IN THE "DOCUMENTATION AND PERMITS" BINDER. REPORTS WILL BE SUBMITTED TO THE TDOT PROJECT ENGINEER PER THE CONTRACT
- 8.1.12. THESE INSPECTION REQUIREMENTS DO NOT APPLY TO DEFINABLE AREAS OF THE SITE THAT HAVE MET FINAL STABILIZATION REQUIREMENTS AND HAVE BEEN NOTED IN THE SWPPP.
- 8.1.13. TRAINED CERTIFIED INSPECTORS SHALL COMPLETE INSPECTION TO THE BEST OF THEIR ABILITY. FALSIFYING INSPECTION RECORDS OR OTHER DOCUMENTATION OR FAILURE TO COMPLETE INSPECTION DOCUMENTATION SHALL RESULT IN A VIOLATION OF THIS PERMIT AND ANY OTHER APPLICABLE ACTS OR RULES (3.5.8.2.h).

8.2. DULY AUTHORIZED REPRESENTATIVE (7.7.3)

THE PROJECT ENGINEER MAY DELEGATE AN INDIVIDUAL AND/OR CONSULTANT TO SIGN EPSC INSPECTIONS REPORTS. FOR SATISFYING SIGNATORY REQUIREMENTS FOR EPSC INSPECTION REPORTS, THE PROJECT ENGINEER AND NEWLY AUTHORIZED INDIVIDUAL ACCEPTING RESPONSIBILITY MUST COMPLETE AND SIGN THE TDOT CONSTRUCTION DIVISION EPSC DELEGATION OF AUTHORITY.

8.3. MAINTENANCE PRACTICES (3.5.3.1 AND 3.5.7)

- 8.3.1. ALL CONTROLS WILL BE MAINTAINED IN GOOD AND EFFECTIVE OPERATING ORDER AND IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES. (3.5.3.1.b)
- 8.3.2. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- 8.3.3. UPON CONCLUSION OF THE INSPECTIONS, EPSC MEASURES FOUND TO BE INEFFECTIVE SHALL BE REPAIRED, REPLACED, OR MODIFIED BEFORE THE NEXT RAIN EVENT, IF POSSIBLE, BUT IN NO CASE, MORE THAN 24 HOURS AFTER THE INSPECTION OR WHEN

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CONST 2017



 TYPE
 YEAR
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 SHEET NO.

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 2015
 02005-2245-14
 CONST.
 2017
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THE CONDITION IS IDENTIFIED. IF THE REPAIR, REPLACEMENT OR MODIFICATION IS NOT PRACTICAL WITHIN THE 24-HOUR TIMEFRAME, WRITTEN DOCUMENTATION PROVIDED BY THE CONTRACTOR SHALL BE PLACED IN THE FIELD DIARY AND EPSC INSPECTION REPORT. AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION. (3.5.8.2.e).

- .3.4. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES (SEDIMENT TRAPS, SILT FENCE, SEDIMENT BASINS, OTHER CONTROLS, ETC.) WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). (3.5.3.1.e).
- 8.3.5. DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE STEPS TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE EPSC MEASURES AT THE CONTRACTOR'S OWN EXPENSE.
- 8.3.6. CHECK DAMS WILL BE INSPECTED FOR STABILITY. SEDIMENT WILL BE REMOVED WHEN DEPTH REACHES ONE-HALF (½) THE HEIGHT OF THE DAM
- 8.3.7. SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES SHALL BE PLACED AND TREATED IN A MANNER SO THAT THE SEDIMENT IS CONTAINED WITHIN THE PROJECT LIMITS, DOES NOT MIGRATE INTO FEATURES REMOVED FROM, AND DOES NOT MIGRATE ONTO ADJACENT PROPERTIES AND/OR INTO WATERS OF THE STATE/U.S.
- 8.3.8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFF THE SITE BY WIND, OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES. AFTER USE, MATERIALS USED FOR EROSION CONTROL WILL BE REMOVED (3.5.3.1.f).
- 8.3.9. ALL SEEDED AREAS WILL BE CHECKED FOR BARE SPOTS, EROSION WASHOUTS, AND VIGOROUS GROWTH FREE OF SIGNIFICANT WEED INFESTATIONS.

9. SITE ASSESSMENTS (3.1.2)

QUALITY ASSURANCE SITE ASSESSMENTS OF EROSION PREVENTION AND SEDIMENT CONTROLS SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL DIVISION COMPLIANCE AND FIELD SERVICES OFFICE GUIDELINES.

10. STORMWATER MANAGEMENT (3.5.4)

- 10.1. STORMWATER MANAGEMENT WILL BE HANDLED BY TEMPORARY CONTROLS OUTLINED IN THIS SWPPP AND ANY PERMANENT CONTROLS NEEDED TO MEET PERMANENT STORMWATER MANAGEMENT NEEDS IN THE POST CONSTRUCTION PERIOD. PERMANENT CONTROLS WILL BE DEPICTED ON THE PLANS AND NOTED AS PERMANENT.
- 10.2. DESCRIBE ANY SPECIFIC POST-CONSTRUCTION MEASURES THAT WILL CONTROL VELOCITY, POLLUTANTS, AND/OR EROSION (3.5.4): RIPRAP
- 10.3. OTHER ITEMS NEEDING CONTROL (3.5.5)

CONSTRUCTION MATERIALS: THE FOLLOWING MATERIALS OR SUBSTANCES ARE EXPECTED TO BE PRESENT ON THE SITE DURING THE CONSTRUCTION PERIOD. (CHECK ALL THAT APPLY).

- ☑ LUMBER, GUARDRAIL, TRAFFIC CONTROL DEVICES
- ☑ CONCRETE WASHOUT
- $\ oxtimes$ PIPE CULVERTS (I.E. CONCRETE, CORRUGATED METAL, HDPE, ETC.)
- ☑ MINERAL AGGREGATES, ASPHALT
- **⊠** EARTH
- ☑ LIQUID TRAFFIC STRIPING MATERIALS, PAINT
- ☑ ROCK
- ☑ CURING COMPOUND
- ☐ EXPLOSIVES
- OTHER ___

THESE MATERIALS WILL BE HANDLED AS NOTED IN THIS SWPPP.

10.4. WASTE MATERIALS (3.5.5.b)

WASTE MATERIAL (EARTH, ROCK, ASPHALT, CONCRETE, ETC.) NOT REQUIRED FOR THE CONSTRUCTION OF THE PROJECT WILL BE DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH THE TDOT

CONSTRUCTION CONTRACT AND FEDERAL AND STATE REGULATIONS. IMPACTS TO WATERS OF THE STATE/U.S. SHALL BE AVOIDED IF POSSIBLE. IF UNAVOIDABLE, THE CONTRACTOR WILL OBTAIN ALL NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO NPDES, AQUATIC RESOURCES ALTERATION PERMIT(S) CORPS OF ENGINEERS SECTION 404 PERMITS, AND TVA SECTION 26A PERMITS TO DISPOSE OF WASTE MATERIALS.

10.5. HAZARDOUS WASTE (3.5.5.c) (7.9)

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN A MANNER WHICH IS COMPLIANT WITH LOCAL OR STATE REGULATIONS. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES, AND THE INDIVIDUAL DESIGNATED AS THE CONTRACTOR'S ON-SITE REPRESENTATIVE WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED. THE CONTRACTOR WILL OBTAIN ALL NECESSARY PERMITS TO DISPOSE OF HAZARDOUS MATERIAL.

10.6. SANITARY WASTE (3.5.5.b)

PORTABLE SANITARY FACILITIES WILL BE PROVIDED ON ALL CONSTRUCTION SITES. SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS IN A TIMELY MANNER BY A LICENSED WASTE MANAGEMENT CONTRACTOR OR AS REQUIRED BY ANY LOCAL REGULATIONS. THE CONTRACTOR WILL OBTAIN ALL NECESSARY PERMITS TO DISPOSE OF SANITARY WASTE.

10.7. OTHER MATERIALS

THE FOLLOWING MATERIALS OR SUBSTANCES ARE EXPECTED TO BE PRESENT ON THE SITE DURING THE CONSTRUCTION PERIOD. (CHECK ALL THAT APPLY).

- ☐ FERTILIZERS AND LIME
- ☐ PESTICIDES AND/OR HERBICIDES
- ☑ DIESEL AND GASOLINE
- ☑ MACHINERY LUBRICANTS (OIL AND GREASE)

THESE MATERIALS WILL BE HANDLED AS NOTED IN THIS SWPPP

11. NON-STORMWATER DISCHARGES (3.5.9)

- 11.1. THE FOLLOWING NON-STORMWATER DISCHARGES ARE ANTICIPATED DURING THE CONSTRUCTION OF THIS PROJECT (CHECK ALL THAT APPLY):
 - □ DEWATERING OF WORK AREAS OF COLLECTED STORMWATER AND GROUND WATER.
 - MATERS USED TO WASH VEHICLES (OF DUST AND SOIL) WHERE DETERGENTS ARE NOT USED AND DETENTION AND/OR FILTERING IS PROVIDED BEFORE THE WATER LEAVES THE SITE.
 - ☑ WATER USED TO CONTROL DUST. (3.5.3.1.n)
 - POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHING FROM WHICH CHLORINE HAS BEEN REMOVED TO THE MAXIMUM EXTENT PRACTICABLE.
 - ☐ UNCONTAMINATED GROUNDWATER OR SPRING WATER.
 - FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH POLLUTANTS.
 - OTHER:
- 11.2. ALL ALLOWABLE NON-STORMWATER DISCHARGES WILL BE DIRECTED TO STABLE DISCHARGE STRUCTURES PRIOR TO LEAVING THE SITE. FILTERING OR CHEMICAL TREATMENT MAY BE NECESSARY PRIOR TO DISCHARGE. ALL CHEMICAL TREATMENTS MUST BE APPLIED PER SECTION 6 FLOCCILI ANTS
- 11.3. THE DESIGN OF ALL IMPACTED EPSC MEASURES RECEIVING FLOW FROM ALLOWABLE NON-STORMWATER DISCHARGES MUST BE DESIGNED TO HANDLE THE VOLUME OF THE NON-STORMWATER COMPONENT.
- 11.4. WASH DOWN OR WASTE DISCHARGE OF CONCRETE TRUCKS WILL NOT BE PERMITTED ON-SITE UNLESS PROPER SETTLEMENT AREAS HAVE BEEN PROVIDED IN ACCORDANCE WITH BOTH STATE AND FEDERAL REGULATIONS.
- 11.5. ARE ANY DISCHARGES ASSOCIATED WITH INDUSTRIAL (NON-CONSTRUCTION STORMWATER) ACTIVITY EXPECTED (3.5.1.i)?

□ YES ⊠ NO

IF YES, SPECIFY THE LOCATION OF THE ACTIVITY AND ITS PERMIT NUMBER: $\underline{\hspace{1cm}}$

12. SPILL PREVENTION, MANAGEMENT AND NOTIFICATION (3.5.5.c, 5.1)

12.1. SPILL PREVENTION (3.5.5.c)

- 12.1.1. CONTRACTOR'S BULK FUEL AND PETROLEUM PRODUCTS STORED ON-SITE OR ADJACENT TO THE R.O.W. IN ABOVE GROUND STORAGE TANKS WITH AGGREGATE STORAGE CAPACITY IN EXCESS OF 1,320 GALLONS SHALL HAVE SECONDARY CONTAINMENT.
- 12.1.2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN AS REQUIRED BY TDOT SPECIAL PROVISION 107FP (REGARDING WATER QUALITY AND STORM WATER PERMITS) AND THE LAW.
- 12.1.3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR OBTAINING ANY NECESSARY LOCAL, STATE, AND FEDERAL PERMITS. THE SPCC PLAN AND/OR PERMITS SHALL BE KEPT ONSITE AND A COPY PROVIDED TO THE TDOT CONSTRUCTION ENGINEER.

12.2. MATERIAL MANAGEMENT

12.2.1. HOUSEKEEPING

ONLY NEEDED PRODUCTS WILL BE STORED ON-SITE BY THE CONTRACTOR. EXCEPT FOR BULK MATERIALS THE CONTRACTOR WILL STORE ALL MATERIALS UNDER COVER AND IN APPROPRIATE CONTAINERS. PRODUCTS MUST BE STORED IN ORIGINAL CONTAINERS AND LABELED. MATERIAL MIXING WILL BE CONDUCTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHEN POSSIBLE, ALL PRODUCTS WILL BE USED COMPLETELY BEFORE PROPERLY DISPOSING OF THE CONTAINER OFF SITE. THE MANUFACTURER'S DIRECTIONS FOR DISPOSAL OF MATERIALS AND CONTAINERS WILL BE FOLLOWED. THE CONTRACTOR'S SITE SUPERINTENDENT WILL INSPECT MATERIALS STORAGE AREAS REGULARLY TO ENSURE PROPER USE AND DISPOSAL. DUST GENERATED WILL BE CONTROLLED IN AN ENVIRONMENTALLY SAFE MANNER. VEGETATION AREAS NOT ESSENTIAL TO THE CONSTRUCTION PROJECT WILL BE PRESERVED AND MAINTAINED AS NOTED ON THE PLANS.

12.2.2. HAZARDOUS MATERIALS

PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THE CONTAINER IS NOT RE-SEALABLE. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHEETS WILL BE RETAINED IN A SAFE PLACE TO RELAY IMPORTANT PRODUCT INFORMATION. IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S LABEL DIRECTIONS FOR DISPOSAL WILL BE FOLLOWED MAINTENANCE AND REPAIR OF ALL EQUIPMENT AND VEHICLES INVOLVING OIL CHANGES, HYDRAULIC SYSTEM DRAIN DOWN, DE-GREASING OPERATIONS, FUEL TANK DRAIN DOWN AND REMOVAL AND OTHER ACTIVITIES WHICH MAY RESULT IN THE ACCIDENTAL RELEASE OF CONTAMINANTS WILL BE CONDUCTED ON AN IMPERVIOUS SURFACE AND UNDER COVER DURING WET WEATHER TO PREVENT THE RELEASE OF CONTAMINANTS ONTO THE GROUND. WHEEL WASH WATER WILL BE COLLECTED AND ALLOWED TO SETTLE OUT SUSPENDED SOLIDS PRIOR TO DISCHARGE. WHEEL WASH WATER WILL NOT BE DISCHARGED DIRECTLY INTO ANY STORMWATER SYSTEM OR STORMWATER TREATMENT SYSTEM. POTENTIAL pH-MODIFYING MATERIALS SUCH AS: BULK CEMENT, CEMENT KILN DUST, FLY ASH, NEW CONCRETE WASHINGS AND CURING WATERS, CONCRETE PUMPING, AND MIXER WASHOUT WATERS WILL BE COLLECTED ON SITE AND MANAGED TO PREVENT CONTAMINATION OF STORMWATER RUNOFF.

12.3. PRODUCT SPECIFIC PRACTICES

- 12.3.1. PETROLEUM PRODUCTS: ALL ON-SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED.
- 12.3.2. FERTILIZERS: FERTILIZERS WILL BE APPLIED ONLY IN THE AMOUNTS SPECIFIED BY THE SOIL ANALYSIS OR TDOT. ONCE APPLIED, FERTILIZERS WILL BE WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORMWATER. FERTILIZERS WILL BE STORED IN AN ENCLOSED AREA UNDER COVER. THE CONTENTS OF PARTIALLY USED FERTILIZER BAGS WILL BE TRANSFERRED TO SEALABLE CONTAINERS TO AVOID SPILLS.
- 12.3.3. PAINTS: ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. THE EXCESS WILL BE DISPOSED OF PER THE MANUFACTURER'S INSTRUCTIONS AND APPLICABLE STATE AND LOCAL REGULATIONS.

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12.3.4. CONCRETE TRUCKS: CONTRACTORS WILL PROVIDE DESIGNATED TRUCK WASHOUT AREAS ON THE SITE. THESE AREAS MUST BE SELF CONTAINED AND NOT CONNECTED TO ANY STORMWATER OUTLET OF THE SITE. UPON COMPLETION OF CONSTRUCTION WASHOUT AREAS WILL BE PROPERLY STABILIZED.

12.4. SPILL MANAGEMENT

IN ADDITION TO THE PREVIOUS HOUSEKEEPING AND MANAGEMENT PRACTICES, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP IF NECESSARY:

- 12.4.1. FOR ALL HAZARDOUS MATERIALS STORED ON SITE, THE MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEAN UP WILL BE CLEARLY POSTED. SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATIONS OF THE INFORMATION AND CLEANUP SUPPLIES.
- 12.4.2. APPROPRIATE CLEANUP MATERIALS AND EQUIPMENT WILL BE MAINTAINED BY THE CONTRACTOR IN THE MATERIALS STORAGE AREA ON-SITE AND UNDER COVER. AS APPROPRIATE, EQUIPMENT AND MATERIALS MAY INCLUDE ITEMS SUCH AS BOOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR CLEAN UP PURPOSES.
- 12.4.3. ALL SPILLS WILL BE CLEANED IMMEDIATELY AFTER DISCOVERY AND THE MATERIALS DISPOSED OF PROPERLY. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- 12.4.4. THE CONTRACTOR'S RESPONSIBLE PARTY WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SITE SUPERINTENDENT HAS HAD APPROPRIATE TRAINING FOR HAZARDOUS MATERIALS HANDLING, SPILL MANAGEMENT, AND CLEANUR
- 12.4.5. IF SPILLS REPRESENT AN IMMINENT THREAT OF ESCAPING THE SITE AND ENTERING RECEIVING WATERS, PERSONNEL WILL RESPOND IMMEDIATELY TO CONTAIN THE RELEASE AND NOTIFY THE SUPERINTENDENT AFTER THE SITUATION HAS BEEN STABILIZED.
- 12.4.6. IF AN OIL SHEEN IS OBSERVED ON SURFACE WATER (E.G. SETTLING PONDS, DETENTION PONDS, SWALES), ACTION WILL BE TAKEN IMMEDIATELY TO REMOVE THE MATERIAL CAUSING THE SHEEN. THE CONTRACTOR WILL USE APPROPRIATE MATERIALS TO CONTAIN AND ABSORB THE SPILL. THE SOURCE OF THE OIL SHEEN WILL ALSO BE IDENTIFIED AND REMOVED OR REPAIRED AS NECESSARY TO PREVENT FURTHER RELEASES.
- 12.4.7. IF A SPILL OCCURS THE CONTRACTOR'S SITE SUPERINTENDENT SHALL BE RESPONSIBLE FOR COMPLETING THE SPILL REPORTING FORM AND FOR REPORTING THE SPILL TO THE TDOT CONSTRUCTION ENGINEER AND/OR PROJECT ENGINEER. ALL SPILLS MUST BE REPORTED TO THE APPROPRIATE AGENCY, AND MEASURES SHALL BE TAKEN IMMEDIATELY TO PREVENT THE POLLUTION OF WATERS OF THE STATE/U.S., INCLUDING GROUNDWATER, SHOULD A SPILL OCCUR.
- 12.4.8. APPROPRIATE CLEANUP MATERIALS AND EQUIPMENT SHALL BE MAINTAINED BY THE CONTRACTOR IN THE MATERIALS STORAGE AREA ON-SITE AND UNDER COVER. SPILL RESPONSE EQUIPMENT SHALL BE INSPECTED AND MAINTAINED BY THE CONTRACTOR AS NECESSARY TO REPLACE ANY MATERIALS USED IN SPILL RESPONSE ACTIVITIES.

12.5. SPILL NOTIFICATION (5.1)

WHERE A RELEASE CONTAINING A HAZARDOUS SUBSTANCE IN AN AMOUNT EQUAL TO, OR MORE THAN A REPORTABLE QUANTITY ESTABLISHED UNDER EITHER 40 CFR 117 OR 40 CFR 302 OCCURS DURING A 24 HOUR PERIOD:

- 12.5.1. THE TDOT PROJECT ENGINEER IS RESPONSIBLE FOR NOTIFYING THE REGIONAL PROJECT DEVELOPMENT OFFICE (E.G. TRANSPORTATION ENVIRONMENTAL STUDIES SPECIALIST) AS SOON AS HE OR SHE HAS KNOWLEDGE OF THE DISCHARGE.
- 12.5.2. THE TDOT REGIONAL PROJECT DEVELOPMENT OFFICE WILL NOTIFY THE LOCAL TDEC ENVIRONMENTAL FIELD OFFICE AND ANY OTHER APPLICABLE REGULATORY AGENCIES WITHIN 24 HOURS OF THE SPILL.
- 12.5.3. IN ADDITION TO ANY FOLLOW UP NOTIFICATIONS REQUIRED BY FEDERAL LAW, A WRITTEN DESCRIPTION OF THE RELEASE, DATE

OF RELEASE AND CIRCUMSTANCES LEADING TO THE RELEASE, WHAT ACTIONS WERE TAKEN TO MITIGATE EFFECTS OF THE RELEASE, AND STEPS TAKEN TO MINIMIZE THE CHANCE OF FUTURE OCCURRENCES WILL BE SUBMITTED TO THE APPROPRIATE TDEC ENVIRONMENTAL FIELD OFFICE WITHIN 14 DAYS OF KNOWLEDGE OF THE RELEASE.

12.5.4. THE SWPPP MUST BE MODIFIED WITHIN 14 DAYS OF KNOWLEDGE OF THE RELEASE PROVIDING A DESCRIPTION OF THE RELEASE, CIRCUMSTANCES LEADING TO THE RELEASE, AND THE DATE OF RELEASE. THE SWPPP WILL BE REVIEWED AND MODIFIED AS NECESSARY TO IDENTIFY MEASURES TO PREVENT THE REOCCURRENCE OF SUCH RELEASES AND TO RESPOND TO SUCH RELEASES.

13. RECORD-KEEPING

13.1. REQUIRED RECORDS

TDOT OR THEIR DULY AUTHORIZED REPRESENTATIVE WILL MAINTAIN AT THE SITE THE FOLLOWING RECORDS OF CONSTRUCTION ACTIVITIES (3.5.3.1.m) (4.1.5.) (6.2.1):

- 13.1.1. THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR.
- 13.1.2. THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE.
- 13.1.3. THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.
- 13.1.4. RECORDS EPSC INSPECTION REPORTS AND CORRECTIVE MEASURES.
- 13.1.5. RECORDS OF QUALITY ASSURANCE SITE ASSESSMENTS.
- 13.1.6. COPY OF SITE EPSC INSPECTOR'S CERTIFICATION AND/OR LICENSING
- 13.1.7. COPY OF REQUIRED SOIL ANALYSIS
- 13.1.8. A COPY OF ANY REGULATORY CORRESPONDENCE REGARDING THE EFFECTIVENESS OF THE SWPPP OR EPSC CONTROLS.

13.2. RAINFALL MONITORING PLAN (3.5.3.1.o):

13.2.1. EQUIPMENT

AT A MINIMUM, THE CONTRACTOR WILL INSTALL A FENCE POST TYPE RAIN GAUGE TO MEASURE RAINFALL. THE STANDARD FENCE POST RAIN GAUGE WILL BE A WEDGE-SHAPED GAUGE THAT MEASURES UP TO 6 INCHES OF RAINFALL. AN ENGLISH SCALE WILL BE PROVIDED ON ONE FACE, WITH A METRIC SCALE ON THE OTHER FACE. GRADUATION WILL BE PERMANENTLY MOLDED IN DURABLE WEATHER-RESISTANT PLASTIC. THE MINIMUM GRADUATION WILL BE 0.01 INCH (OR 0.1MM). AN ALUMINUM BRACKET WITH SCREWS MAY BE USED TO MOUNT THE GAUGE ON A WOODEN SUPPORT.

13.2.2. LOCATION

THE RAIN GAUGE WILL BE LOCATED AT OR ALONG THE PROJECT SITE, AS DEFINED IN THE NOI OF THE NPDES PERMIT, IN AN OPEN AREA SUCH THAT THE MEASUREMENT WILL NOT BE INFLUENCED BY OUTSIDE FACTORS (I.E. OVERHANGS, GUTTER, TREES, ETC.). AT LEAST ONE RAIN GAUGE PER LINEAR MILE IS REQUIRED ALONG (AS MEASURED ALONG THE CENTERLINE OF THE PRIMARY ALIGNMENT) THE PROJECT WHERE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING IS ACTIVELY PERFORMED, OR EXPOSED SOIL HAS NOT YET BEEN PERMANENTLY STABILIZED.

13.2.3. METHODS

RAINFALL MONITORING WILL BE INITIATED PRIOR TO CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING, OR FILLING, EXCEPT AS SUCH MINIMAL CLEARING MAY BE NECESSARY TO INSTALL A RAIN GAUGE IN AN OPEN AREA. THE RAIN GAUGE WILL BE CHECKED FOR OPERATIONAL SOUNDNESS DAILY (DURING NORMAL BUSINESS HOURS) IN WET TIMES AND WEEKLY IN DRY TIMES. GAUGES WILL BE REPAIRED OR REPLACED ON THE SAME DAY IF FOUND TO BE NON-OPERATIONAL OR MISSING.

13.2.4. EACH RAIN GAUGE WILL BE READ (FOR DETAILED RECORDS OF RAINFALL) AND EMPTIED AFTER EVERY RAINFALL EVENT OCCURRING ON THE PROJECT SITE AT APPROXIMATELY THE SAME TIME OF THE DAY (DURING NORMAL BUSINESS HOURS). DURING PERIODS OF DRY CONDITIONS, IT WILL NOT BE NECESSARY TO READ THE RAIN GAUGE EVERY DAY. IN LIEU OF THIS REQUIREMENT ON WEEKENDS AND ON STATE HOLIDAYS, THE RAIN GAUGES CAN BE EMPTIED THE NEXT BUSINESS DAY AND A REFERENCE SITE USED FOR A RECORD OF DAILY AMOUNT OF

PRECIPITATION FOR THOSE DAYS. A REFERENCE SITE IS THE DOCUMENTATION FROM THE CLOSEST GAUGE WITHIN PROXIMITY OF THE PROJECT FROM A RECOGNIZED SOURCE SUCH AS THE NOAA NATIONAL WEATHER SERVICE

- 13.2.5. DETAILED RECORDS WILL BE RECORDED OF RAINFALL EVENTS INCLUDE DATES, AMOUNTS OF RAINFALL, AND THE APPROXIMATE DURATION (OR THE STARTING AND ENDING TIMES). THE RAINFALL RECORDS SHALL BE RECORDED ON THE TDOT RAINFALL RECORD SHEET AND SHALL BE MAINTAINED IN THE "DOCUMENTATION AND PERMITS" BINDER
- 13.2.6. IF THE RAINFALL EVENT IS STILL IN PROGRESS AT THE DAILY RECORDING TIME, THE GAUGE WILL BE EMPTIED AND THE RECORD WILL INDICATE THAT THE STORM EVENT WAS STILL IN PROGRESS
- 13.2.7. RAIN GAUGE INFORMATION (DETAILED RECORDS), INCLUDING THE LOCATION OF THE NEAREST OUTFALL, WILL BE RECORDED ON THE EPSC INSPECTION REPORT FORMS AT THE TIME OF MEASUREMENT.

13.3. KEEPING PLANS CURRENT (3.4)

- 13.3.1. THE EPSC PLAN IS TO SERVE AS AN INITIAL GUIDE FOR SITE PERSONNEL AS THE CONSTRUCTION PROCESS DEVELOPS. IT MUST BE AMENDED, MODIFIED, AND UPDATED WHENEVER EPSC INSPECTIONS INDICATE, OR WHERE STATE OR FEDERAL REGULATORY OFFICIALS DETERMINE EPSC MEASURES ARE PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES OR ARE OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORMWATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY.
- 13.3.2. THE STAGES DEPICTED WITHIN THE EPSC PLANS MAY NOT COINCIDE WITH THE ACTUAL STAGES OF CONSTRUCTION ESTABLISHED BY THE CONTRACTOR DURING CONSTRUCTION, THUS MODIFICATIONS WILL BE REQUIRED TO ENSURE THE EPSC PLAN IS MAINTAINED TO DEPICT CURRENT SITE CONDITIONS. IT SHOULD BE MAINTAINED SUCH THAT IT WILL ALWAYS REFLECT THE MEASURES THAT ARE INSTALLED DURING THE VARIOUS STAGES OF CONSTRUCTION. IT IS IMPRACTICAL TO DETERMINE ALL THE INTERMEDIATE STAGES OF CONSTRUCTION THAT WILL OCCUR, THUS THESE DOCUMENTS MUST BE UPDATED THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT.
- 13.3.3. THE TDOT EPSC INSPECTOR OR THEIR DULY AUTHORIZED REPRESENTATIVE WILL MODIFY AND UPDATE THE SWPPP WHEN ANY OF THE FOLLOWING CONDITIONS APPLY:
 - 13.3.3.1. WHENEVER THERE IS A CHANGE IN THE SCOPE OF THE PROJECT THAT WOULD BE EXPECTED TO HAVE A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO THE WATERS OF THE STATE AND WHICH HAS NOT OTHERWISE BEEN ADDRESSED IN THE SWPPP;
 - 13.3.3.2. WHENEVER INSPECTIONS OR INVESTIGATIONS BY SITE OPERATORS, LOCAL, STATE, OR FEDERAL OFFICIALS INDICATE THE SWPPP IS PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANTS FROM CONSTRUCTION ACTIVITY SOURCES, OR IS OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY; WHERE LOCAL, STATE, OR FEDERAL OFFICIALS DETERMINE THAT THE SWPPP IS INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES, A COPY OF ANY CORRESPONDENCE TO THAT EFFECT MUST BE RETAINED IN THE SWPPP;
 - 13.3.3.3. WHEN ANY NEW OPERATOR AND/OR SUB-OPERATOR IS ASSIGNED OR RELIEVED OF THEIR RESPONSIBILITY TO IMPLEMENT A PORTION OF THE SWPPP;
 - 13.3.3.4. TO PREVENT A NEGATIVE IMPACT TO LEGALLY PROTECTED STATE OR FEDERALLY LISTED OR PROPOSED THREATENED OR ENDANGERED AQUATIC FAUNA:
 - 13.3.3.5. WHEN THERE IS A CHANGE IN CHEMICAL TREATMENT METHODS INCLUDING: USE OF DIFFERENT TREATMENT CHEMICALS, DIFFERENT DOSAGE OR APPLICATION RATES OR A DIFFERENT AREA OF APPLICATION NOT SPECIFIED ON THE EPSC PLANS.
 - 13.3.3.6. ALL SWPPP REVISION(S) SHALL BE RECORDED WITHIN 7 DAYS BY THE PROJECT EPSC INSPECTOR.

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13.3.3.7. WHEN A TMDL IS DEVELOPED FOR THE RECEIVING WATERS FOR A POLLUTANT OF CONCERN (SILTATION AND/OR HABITAT ALTERATION), CONSTRUCTION SHALL NOTIFY THE PERMITS SECTION FOR PROPER COORDINATION.

13.4. MAKING PLANS ACCESSIBLE

- 13.4.1. TDOT WILL RETAIN A COPY OF THIS SWPPP (INCLUDING A COPY OF THE "DOCUMENTATION AND PERMITS" BINDER AT THE CONSTRUCTION SITE (OR OTHER LOCATION ACCESSIBLE TO TDEC AND THE PUBLIC) FROM THE DATE CONSTRUCTION COMMENCES TO THE DATE OF FINAL STABILIZATION. TDOT WILL HAVE A COPY OF THE SWPPP AVAILABLE AT THE LOCATION WHERE WORK IS OCCURRING ON-SITE FOR THE USE OF OPERATORS AND THOSE IDENTIFIED AS HAVING RESPONSIBILITIES UNDER THE SWPPP WHENEVER THEY ARE ON THE CONSTRUCTION SITE (6.2).
- 13.4.2. PRIOR TO THE INITIATION OF LAND DISTURBING ACTIVITIES AND UNTIL THE SITE HAS MET THE FINAL STABILIZATION CRITERIA, TDOT OR THEIR DULY AUTHORIZED REPRESENTATIVE WILL POST A NOTICE NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE WITH THE FOLLOWING INFORMATION (3.3.3) (6.2.1):
 - 13.4.2.1. A COPY OF THE NOTICE OF COVERAGE (NOC) WITH THE NPDES PERMIT NUMBER FOR THE PROJECT:
 - 13.4.2.2. THE INDIVIDUAL NAME, COMPANY NAME, E-MAIL ADDRESS (IF APPLICABLE) AND TELEPHONE NUMBER OF THE LOCAL PROJECT SITE OWNER AND OPERATOR CONTACT;
 - 13.4.2.3. A BRIEF DESCRIPTION OF THE PROJECT; AND
 - 13.4.2.4. THE LOCATION OF THE SWPPP.
- 13.4.3. ALL INFORMATION DESCRIBED IN SECTION 13.4.2 MUST BE MAINTAINED IN LEGIBLE CONDITION. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE DUE TO SAFETY CONCERNS, THE NOTICE SHALL BE POSTED IN A LOCAL BUILDING. THE NOTICE MUST BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION WHERE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY.

13.5. NOTICE OF TERMINATION (8.0)

- 13.5.1. WHEN ALL STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES THAT ARE AUTHORIZED BY THE PERMIT ARE ELIMINATED BY FINAL STABILIZATION, THE TDOT REGIONAL ENGINEER WILL SUBMIT A NOTICE OF TERMINATION (NOT) THAT IS SIGNED IN ACCORDANCE WITH THE PERMIT TO THE TDEC CENTRAL OFFICE IN NASHVILLE, TN.
- 13.5.2. FOR THE PURPOSES OF THE CERTIFICATION REQUIRED BY THE NOT, THE ELIMINATION OF STORMWATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY MEANS THE
 - 13.5.2.1. ALL EARTH-DISTURBING ACTIVITIES ON THE SITE ARE COMPLETED AND ALL DISTURBED SOILS AT THE PORTION OF THE CONSTRUCTION SITE WHERE THE OPERATOR HAD CONTROL HAVE BEEN FINALLY STABILIZED; AND
 - 13.5.2.2. ALL CONSTRUCTION MATERIALS, WASTE AND WASTE HANDLING DEVICES, AND ALL EQUIPMENT, AND VEHICLES THAT WERE USED DURING CONSTRUCTION HAVE BEEN REMOVED AND PROPERLY DISPOSED; AND
 - 13.5.2.3. ALL STORMWATER CONTROLS THAT WERE INSTALLED AND MAINTAINED DURING CONSTRUCTION, EXCEPT THOSE THAT ARE INTENDED FOR LONG-TERM USE FOLLOWING TERMINATION OF PERMIT COVERAGE, HAVE BEEN REMOVED; AND
 - 13.5.2.4. ALL POTENTIAL POLLUTANTS AND POLLUTANT GENERATING ACTIVITIES ASSOCIATED WITH CONSTRUCTION HAVE BEEN REMOVED; AND
 - 13.5.2.5. THE PERMITTEE HAS IDENTIFIED WHO IS RESPONSIBLE FOR ONGOING MAINTENANCE OF ANY STORMWATER CONTROLS LEFT ON THE SITE FOR LONG-TERM USE FOLLOWING TERMINATION OF PERMIT COVERAGE; AND
 - 13.5.2.6. TEMPORARY EPSC MEASURES HAVE BEEN OR WILL BE REMOVED AT AN APPROPRIATE TIME TO ENSURE FINAL STABILIZATION IS MAINTAINED; AND
 - 13.5.2.7. ALL STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES FROM THE IDENTIFIED SITE THAT ARE AUTHORIZED BY A NPDES GENERAL PERMIT HAVE OTHERWISE BEEN ELIMINATED FROM THE PORTION

OF THE CONSTRUCTION SITE WHERE THE OPERATOR HAD CONTROL

13.6. RETENTION OF RECORDS (6.2)

TDOT WILL RETAIN COPIES OF THE SWPPP, ALL REPORTS REQUIRED BY THE PERMIT, AND RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT FOR THE PROJECT FOR A PERIOD OF AT LEAST THREE (3) YEARS FROM THE DATE THE NOT WAS FILED.

14. SITE WIDE/PRIMARY PERMITTEE CERTIFICATION (7.7.5)

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED BY ME, OR UNDER MY DIRECTION OR SUPERVISION. THE SUBMITTED INFORMATION IS TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. AS SPECIFIED IN TENNESSEE CODE ANNOTATED SECTION 39-16-702(a)(4), THIS DECLARATION IS MADE UNDER PENALTY OF PERJURY.

Anthony R. Myen

AUTHORIZED TDOT PERSONNEL SIGNATURE (3.3.1)

Anthony R. Myers

PRINTED NAME

Transportation Manager 2

TITLE

07/25/2017

DATE

DATE

15. SECONDARY PERMITTEE (OPERATOR) CERTIFICATION (7.7.6)

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE REVIEWED THIS DOCUMENT, ANY ATTACHMENTS, AND THE SWPPP REFERENCED ABOVE. BASED ON MY INQUIRY OF THE CONSTRUCTION SITE OWNER/DEVELOPER IDENTIFIED ABOVE AND/OR MY INQUIRY OF THE PERSON DIRECTLY RESPONSIBLE FOR ASSEMBLING THIS NOI AND SWPPP, I BELIEVE THE INFORMATION SUBMITTED IS ACCURATE. I AM AWARE THAT THIS NOI, IF APPROVED, MAKES THE ABOVEDESCRIBED CONSTRUCTION ACTIVITY SUBJECT TO NPDES PERMIT NUMBER TNR100000, AND THAT CERTAIN OF MY ACTIVITIES ONSITE ARE THEREBY REGULATED. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS, AND FOR FAILURE TO COMPLY WITH THESE PERMIT REQUIREMENTS. AS SPECIFIED IN TENNESSEE CODE ANNOTATED SECTION 39-16-702(a)(4), THIS DECLARATION IS MADE UNDER PENALTY OF PERJURY.

R.O.W. 2015 02005-3252-14 CONST. 2017 NHE-16 (54) S-7

16. ENVIRONMENTAL PERMITS (9.0)

LIST ALL ENVIRONMENTAL PERMITS AND EXPIRATION DATES FOR PROJECT (TO BE COMPLETED AT THE ENVIRONMENTAL PRECONSTRUCTION MEETING BY TDOT CONSTRUCTION OR THEIR DULY AUTHORIZED REPRESENTATIVE):

	ENVIRONMENTAL PERMITS									
PERMIT	YES OR NO	PERMIT OR TRACKING NO.	EXPIRATION DATE*							
TDEC ARAP										
CORPS OF ENGINEERS (USACE)										
TVA 26A										
TDEC CGP										
OTHER:										

^{*}THE TDOT ENVIRONMENTAL DIVISION MUST BE NOTIFIED SIX MONTHS PRIOR TO PERMIT EXPIRATION DATE.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PREVENTION PLAN

TENNESSEE D.O.T.

FILE NO.

R.O.W. 2015 02005-2245-14 CONST. 2017 NHE-16 (54) S-8

17. OUTFALL TABLE (3.5.1.d, 5.4.1.q)

EPSC STAGE*	OUTFALL LABEL	SUB- OUTFALL	STATION CL, LT, OR RT	SLOPE WITHIN ROW (%)	STAGE 1 DRAINAGE AREA (AC)	STAGE 2 DRAINAGE AREA (AC)	STAGE 3 DRAINAGE AREA (AC)	STAGE 4 DRAINAGE AREA (AC)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO, OR N/A)	RECEIVING RESOURCE (TDOT EBR LABEL) OR OTHER	COMMENTS
1, 2, 3, 4	1		413+14 LT S.R. 16	1.08	1.1	1.1	1.1	1.1	N/A	ROADSIDE DITCH	
1, 2, 3, 4	2		412+32 RT S.R. 16	6.48	1.4	1.4	1.4	1.4	N/A	ROADSIDE DITCH	
1	3		427+61 RT S.R. 16	4.71	2				N/A	WWC-1/EPH-1	
1	4		427+50 RT S.R. 16	7.05	12.4	12.4	12.4		YES	STR-1	CLEAN RUN-ON DIVERSION OF STR-1 THROUGH PROJECT
2	4A		435+80 RT S.R. 16	7.78	1.8				N/A	STR-1	
1	5		427+28 RT S.R. 16	4.54	6.8				NO	STR-1	CLEAN RUN-ON DIVERSION VIA DIVERSION BERM, PIPE AND CHANNEL.
1		5A	424+81 RT S.R. 16	8.70	0.4				N/A	STR-1	
1, 3	6		428+56 LT S.R. 16	3.10	1.1		1.1		N/A	STR-1	
1, 3	7		428+79 LT S.R. 16	5.85	0.5		0.5		N/A	STR-1	
1	8		453+20 RT S.R. 16	14.32	7.2				NO	WWC-8/EPH-8	SEE SUB-OUTFALLS.
1		8A	452+75 RT S.R. 16	12.03	2.0				N/A	WWC-8/EPH-8	
1		8B	452+62 RT S.R. 16	13.59	2.3				N/A	WWC-8/EPH-8	
1		8C	452+45 RT S.R. 16	9.12	2.1				N/A	WWC-8/EPH-8	
1		8D	452+90 RT S.R. 16	15.03	0.8				N/A	WWC-8/EPH-8	
1	9		455+76 LT S.R. 16	3.67	0.8				N/A	STR-2	
1	10		461+85 RT S.R. 16	5.17	3.6				N/A	STR-3	
1, 3, 4	11		461+45 LT S.R. 16	4.92	2.2		2.2	2.2	N/A	STR-3	
1, 2	12		461+45 RT S.R. 16	10.05	1.8	1.8			N/A	STR-3	
1	13		471+74 RT S.R. 16	3.79	3.9				N/A	STR-3	
1, 3, 4	14		480+96 LT S.R. 16	10.25	0.3		0.3	0.3	N/A	STR-3	
1, 2	15		492+23 RT S.R. 16	1.02	4.9	4.9			N/A	WWC-9/EPH-9	
1	16		493+00 RT S.R. 16	6.05	4.4				N/A	WWC-9/EPH-9	
1, 2, 4	17		83+01 LT WHITESIDE HILL RD.	8.81	2.2	2.2		2.2	N/A	ROADSIDE DITCH	
1, 2, 4	18		83+01 RT WHITESIDE HILL RD.	7.14	0.1	0.1		0.1	N/A	ROADSIDE DITCH	
1, 2, 3, 4	19		92+66 LT NORMANDY RD.	4.56	2.0	2.0	2.0	2.0	N/A	ROADSIDE DITCH	
1, 2, 3, 4	20		92+87 RT NORMANDY RD.	2.13	0.2	0.2	0.2	0.2	N/A	ROADSIDE DITCH	
1, 2	21		512+30 LT S.R. 16	14.07	11.5	11.5			NO	DRAINAGE SWALE	STAGE 1: REMAINING DRAINAGE AREA NOT INCLUDED IN SUB-OUTFALLS IS 'CLEAN' RUN-ON DIVERSION THROUGH THE PROJECT. STAGE 2: 'CLEAN' RUN-ON DIVERSION VIA PROPOSED PIPE.
1		21A	512+10 RT S.R. 16	4.56	1.6	1.6	1.6	1.6	N/A	DRAINAGE SWALE	
1		21B	512+36 RT S.R. 16	2.42	0.4	0.4	0.4	0.4	N/A	DRAINAGE SWALE	
1, 3	23		519+90 RT S.R. 16	2.22	1.5		1.5		N/A	WWC-11/EPH-11	
1, 3	24		520+36 RT S.R. 16	4.96	0.3		0.3		N/A	WWC-11/EPH-11	
1, 3	25		527+22 RT S.R. 16	10.24	0.7		0.7		N/A	STR-4	
1, 3, 4	26		531+82 RT S.R. 16	2.42	0.5		0.5	0.5	N/A	STR-4A	
1, 3, 4	27		532+59 RT S.R. 16	5.80	0.6		0.6	0.6	N/A	STR-4A	

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TENNESSEE D.O.T.

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	02005-2245-14	
CONST.	2017	NHE-16 (54)	S-9

1, 2, 4	28		532+33 LT S.R. 16	3.80	1.6	1.6		1.6	N/A	STR-4A	
1	29		551+52 RT S.R. 16	3.41	0.8				N/A	STR-5	
1, 2, 4	30		103+46 RT SHOFNER RD.	0.90	0.1	0.1		0.1	N/A	STR-5	
1, 2, 4	31		103+46 LT SHOFNER RD.	0.90	0.1	0.1		0.1	N/A	STR-5	
1	32		552+50 LT S.R. 16	3.84	4.3				N/A	STR-5	
1, 3, 4	33		557+54 RT S.R. 16	2.55	4.1		4.1	4.1	N/A	WWC-14/EPH-14	
1, 2, 4	34		121+65 RT THOMPSON CREEK RD.	8.37	0.2	0.2		0.2	N/A	ROADSIDE DITCH/TRIBUTARY TO THOMPSON CREEK	
1, 2, 4	35		121+65 LT THOMPSON CREEK RD.	7.43	0.2	0.2		0.2	N/A	ROADSIDE DITCH/TRIBUTARY TO THOMPSON CREEK	
1, 2, 4	36		580+07 RT S.R. 16	5.82	4.7	4.7		4.7	N/A	DRAINAGE SWALE	
1	37		584+58 RT S.R. 16	4.58	0.5				N/A	WWC-17/EPH-17	
1, 3, 4	38		584+25 LT S.R. 16	4.96	0.6		0.6	0.6	N/A	WWC-17/EPH-17	
1	39		584+58 LT S.R. 16	5.21	1.1				N/A	WWC-17/EPH-17	
1, 2	40		590+47 RT S.R. 16	4.99	1.2	1.2			N/A	WWC-18/EPH-18	
1	41		590+47 LT S.R. 16	9.50	2.2				N/A	WWC-18/EPH-18	
1, 2, 4	42		598+42 RT S.R. 16	13.09	4.9	4.9		4.9	N/A	DRAINAGE SWALE	
1, 2, 4	43		603+80 RT S.R. 16	8.91	3.9	3.9		3.9	N/A	DRAINAGE SWALE	
2, 4	44		425+10 RT S.R. 16	5.54		2.2		2.2	N/A	WWC-1/EPH-1	
2, 4	45		425+90 RT S.R. 16	6.64		0.4		0.4	N/A	WWC-1/EPH-1	
2, 4	46		432+50 RT S.R. 16	2.74		0.6		0.6	N/A	WWC-4/EPH-4	
2, 4	48		452+46 RT S.R. 16	1.86		1.5	1.5	1.5	N/A	STR-2	
2, 4	50		133+40 LT WHITESIDE HILL RD.	9.75		14.3		14.3	NO	STR-2	SEE SUB-OUTFALLS. CLEAN RUN-ON DIVERSION OF STR-2 THROUGH PROJECT
2, 4		50A	454+95 RT S.R. 16	3.44		0.7		0.7	N/A	STR-2	
2, 4		50B	454+35 RT S.R. 16	28.83		9.0		9.0	NO	WWC-7/EPH-7	CLEAN RUN-ON DIVERSION DIRECTLY TO WWC-7/EPH-7.
2, 4		50C	133+40 RT WHITESIDE HILL RD.	10.07		4.6		4.6	N/A	WWC-7/EPH-7	
2, 4	52		456+32 RT S.R. 16	4.57		0.2		0.2	N/A	STR-2	
2, 4	53		461+50 RT S.R. 16	3.44		0.7		0.7	N/A	STR-2	
2, 3, 4	54		465+46 RT S.R. 16	1.52		2.8	2.8	2.8	N/A	STR-3	
2, 4	55		468+73 RT S.R. 16	4.98		2.7		2.7	N/A	STR-3	
2, 4	56		81+17 RT WHITESIDE HILL RD.	8.86		2.5		2.5	N/A	DITCH	
2, 4	57		505+10 RT S.R. 16	9.57		0.3		0.3	N/A	WWC-10/EPH-10	
2, 3, 4	58		511+00 RT S.R. 16	1.18		1.1	1.1	1.1	N/A	DRAINAGE SWALE	
2, 3, 4	59		517+00 LT S.R. 16	1.41		1.7	1.7	1.7	N/A	WWC-11/EPH-11	
2, 3, 4	61		519+43 RT S.R. 16	2.05		1.3	1.3	1.3	N/A	WWC-11/EPH-11	
2, 4	62		525+80 LT S.R. 16	1.53		1.1		1.1	N/A	STR-4	
2	63		526+91 LT S.R. 16	9.26		0.3			N/A	STR-4	
2, 4	64		529+53 LT S.R. 16	2.18		1.3		1.3	N/A	STR-4A	
1, 2, 3, 4	65		543+25 RT S.R. 16	4.3	8.2	8.2	8.2	8.2	NO	WWC-13/EPH-13	STAGE 1: 'CLEAN' RUN-ON DIVERSION VIA TEMPORARY DIVERSION CHANNEL AND EXISTING PIPE.
2, 3, 4		65A	543+25 CL S.R. 16	2.07		1.1	1.1	1.1	N/A	WWC-13/EPH-13	

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	02005-2245-14	10.0
ONST.	2017	NHE-16 (54)	S-10

								1		
2, 3, 4		65B	543+25 LT S.R. 16	4.38	4.9	4.9	4.9	N/A	WWC-13/EPH-13	
2, 3, 4	66		551+76 CL S.R. 16	4.13	1.8	1.8	1.8	N/A	STR-5	
2, 4	67		552+11 LT S.R. 16	4.69	3.3		3.3	N/A	STR-5	
2, 4	68		553+87 LT S.R. 16	2.42	0.5		0.5	N/A	STR-5	
2, 3, 4	69		106+60 LT SHOFNER RD.	6.38	0.4	0.4	0.4	N/A	STR-5A	
2, 4	70		106+00 RT SHOFNER RD.	2.58	0.2		0.2	N/A	STR-5A	
2, 4	71		105+40 RT SHOFNER RD.	0.9	0.2		0.2	N/A	STR-5A	
2, 3, 4	72		556+46 RT S.R. 16	0.93	1.9	1.9	1.9	N/A	WWC-14/EPH-14	SEE SUB-OUTFALLS.
2, 3, 4		72A	556+46 CL S.R. 16	2.3	0.6	0.6	0.6	N/A	WWC-14/EPH-14	
2, 3, 4		72B	558+80 CL S.R. 16	2.98	1.3	1.3	1.3	N/A	WWC-14/EPH-14	
2, 3, 4	73		561+00 RT S.R. 16	3.29	2.3	2.3	2.3	N/A	WWC-14/EPH-14	
2, 3, 4	74		565+50 RT S.R. 16	3.37	1.5	1.5	1.5	N/A	WWC-15/EPH-15	
2, 4	75		575+40 RT S.R. 16	1.17	0.9		0.9	N/A	ROADSIDE DITCH/TRIBUTARY TO THOMPSON CREEK	
2, 4	76		585+45 RT S.R. 16	4.75	0.3		0.3	N/A	WWC-17/EPH-17	
2, 4	77		584+20 CL S.R. 16	2.35	1.6		1.6	N/A	WWC-17/EPH-17	
3, 4	78		424+73 LT S.R. 16	1.34		0.8	0.8	N/A	STR-1	
3, 4	79		440+20 LT S.R. 16	4.72		0.8	0.8	N/A	PND-1	
3, 4	80		455+76 LT S.R. 16	2.28		2.1	2.1	N/A	STR-2	
3, 4	81		458+23 LT S.R. 16	4.76		0.3	0.3	N/A	STR-2	
3, 4	82		464+20 LT S.R. 16	2.39		4.6	4.6	N/A	STR-3	
3, 4	83		486+22 LT S.R. 16	9.27		0.7	0.7	N/A	WWC-9/EPH-9	
3, 4	84		488+35 LT S.R. 16	0.62		1.7	1.7	N/A	WWC-9/EPH-9	
3, 4	85		491+80 LT S.R. 16	7.37		0.3	0.3	N/A	WWC-9/EPH-9	
3, 4	86		493+80 LT S.R. 16	3.43		9.9	9.9	NO	WTL-1	SEE SUB-OUTFALLS. REMAINING DRAINAGE AREA NOT INCLUDED IN SUB-OUTFALLS IS 'CLEAN' RUN-ON DIVERSION.
3, 4		86A	496+80 LT S.R. 16	2.97		4.2	4.2	N/A	WTL-1	
3, 4		86B	494+10 LT S.R. 16	14.29		0.7	0.7	N/A	WTL-1	
3, 4		86C	494+79 LT S.R. 16	13.53		0.4	0.4	N/A	WTL-1	
3, 4	87		505+50 LT S.R. 16	9.74		4.1	4.1	N/A	WWC-10/EPH-10	
3, 4	88		510+70 LT S.R. 16	1.87		0.4	0.4	N/A	DRAINAGE SWALE	
3, 4	89		512+32 LT S.R. 16	14.07		11.5	11.5	NO	DRAINAGE SWALE	CLEAN RUN-ON DIVERSION VIA PROPOSED PIPE.
3, 4	90		524+30 RT S.R. 16	2.07		0.8	0.8	N/A	STR-4	
3, 4	91		526+20 RT S.R. 16	4.87		0.3	0.3	N/A	STR-4	
3, 4	92		527+20 RT S.R. 16	5.88		1.2	1.2	N/A	STR-4	
3, 4	93		542+00 RT S.R. 16	1.29		0.7	0.7	N/A	WWC-13/EPH-13	
3, 4	94		552+28 RT S.R. 16	4.34		0.7	0.7	N/A	STR-5	
3, 4	95		573+84 LT S.R. 16	1.22		1.4	1.4	N/A	WWC-15/EPH-15	
3, 4	96		584+82 LT S.R. 16	5.17		1.1	1.1	N/A	WWC-17/EPH-17	
3, 4	97		590+41 LT S.R. 16	7.02		0.4	0.4	N/A	WWC-18/EPH-18	
3, 4	98		590+73 LT S.R. 16	2.49		2.8	2.8	N/A	WWC-18/EPH-18	
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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

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TENNESSEE	DESIGN	9

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	02005-2245-14	6
CONST.	2017	NHE-16 (54)	S-11

		74+60 RT								
1	99	JENKINS RD	4.48	0.5				N/A	WWC-1/EPH-1	
2, 4	100	424+87 RT S.R. 16	4.71		2.1		2.1	N/A	WWC-1/EPH-1	
1	101	454+08 RT S.R. 16	21.00	9.0				NO	WWC-7/EPH-7	CLEAN RUN-ON DIVERSION DIRECTLY TO WWC-7/EPH-7
1, 2, 4	102	464+43 RT S.R. 16	7.23	0.9	0.9		0.9	N/A	STR-3	
3	103	461+70 CL S.R. 16	6.30			0.9		N/A	STR-3	
1, 2	104	484+47 RT S.R. 16	10.06	0.9	0.9			N/A	DRAINAGE SWALE	
2, 4	105	453+45 LT S.R. 16	18.46		2.0		2.0	N/A	WWC-8/EPH-8	
2, 4	106	452+84 RT S.R. 16	11.35		2.3		2.3	N/A	WWC-8/EPH-8	
2, 4	107	453+17 RT S.R. 16	15.56		0.2		0.2	N/A	WWC-8/EPH-8	

ALL UNUSED FIELDS WITHIN THE OUTFALL TABLE ARE TO BE SHADED, HATCHED, OR REMOVED TO INDICATE THEIR NON-USAGE. SOME ROWS WERE LEFT FOR ADDITIONAL OUTFALLS IF NEEDED.

*EPSC PLANS FOR STAGE 2 FOLLOW THE PHASE 1 TRAFFIC CONTROL PLANS; EPSC PLANS FOR STAGE 3 FOLLOW THE PHASE 2 TRAFFIC CONTROL PLANS.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. LENGTH

DESIGNER _____JONATHAN HAYCRAFT, P.E.

P.E. NO. 02005-1242-14

P.I.N. <u>100352.00</u>

5.726 MILES

YEAR SHEET NO. 2006 1 FED. AID PROJ. NO. NHE-16 (29) 02005-2245-14

UPDATED TITLE, UPDATED SPECIFICATIONS, DATE, AND R.O.W. LENGTH.

REV. 01/18/08

ADDED SHEET NO. 40A TO INDEX

EQUATION									
DESCRIPTION	NET EFFECT ON ENUMERATION								
STA. 423 +37.09 BK. = STA. 423 +36.97 AH.	+0.12								
STA. 609 +01.29 BK. = STA. 608 +74.11 AH.	+27.18								
TOTAL	+27.30								

CHIEF ENGINEER

COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

BIDDING

DHV (2026)

T (ADT)

2200

13%

45 MPH (URBAN)

60 MPH (RURAL

55-45

DIVISION ADMINISTRATOR DATE Index Of Sheets SEE SHEET NO. 1A

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING

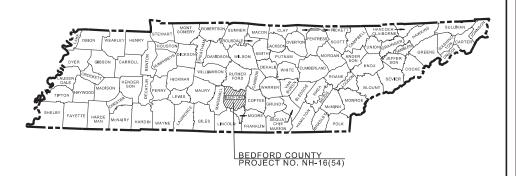
TENN.	YEAR	SHEET NO.				
I EININ.	2017	1				
FED. AID PROJ. NO.	NHE-	16 (54)				
STATE PROJ. NO.	02005-3256-14					

BEDFORD COUNTY

S.R. 16 (US 41A) FROM WEST OF JENKINS ROAD TO S.R. 276 (THOMPSON CREEK RD.)

> CONSTRUCTION GRADE, DRAINAGE, PAVING, SIGNS, STRIPING

> > STATE HIGHWAY NO. 16 F.A.H.S. NO. 41A



 EQUATION

 DESCRIPTION
 NET EFFECT ON ENUMERATION

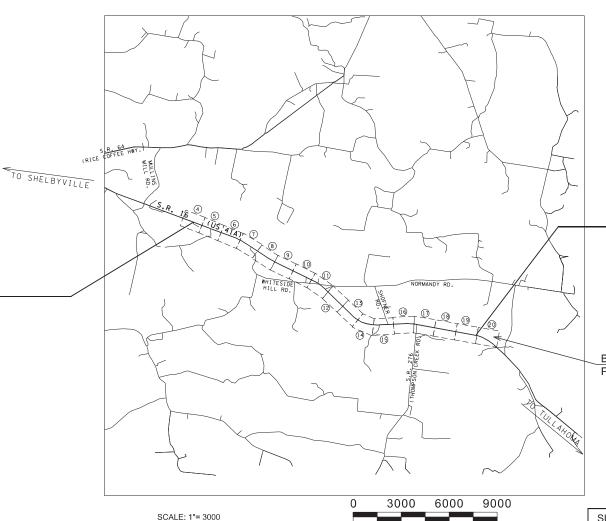
 STA. 423 +37.09 BK. = STA. 423 +36.97 AH.
 +0.12

 TOTAL
 +0.12

BEGIN PROJ. NO. NH-16(54) (CONST.) STA. 200+00.00 S.R. 16 EASTERN TIE=

CHECKED BY: BUDDY SHERRILI

S.P. 02005-3256-14 STA. 412+00.00 { S.R. 16 (US 41A) OFF. 2.53' RT. N 412465.0425 E 185857.9384



BY OTHERS ADJACENT PROJECT PROJECT NO. STP-NHE-16(14)

WHITESIDE HILL AND SHOFNER
ROAD TO BE CLOSED
DURING CONSTRUCTION

NO EXCLUSIONS

END PROJECT NO. NH-16(54) CONST.

S.P. 02005-3256-14 STA. 606+27.18 S.R. 16 N 405557.428 E 1875998.430 SEALED BY

SEALED BY

AGRICULTURB

AGRICULTURB

OF TENNIC AND SINCE POATS

UNOFFICIAL

SET

NOT FOR

BIDDING

APPROVED: Paul D. Dezges
CHIEF ENGINEER

DATE:

APPROVED:

JOHN SCHROER, COMMISSIONER

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED JANUARY 1, 2015 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

TDOT TRANSPORTATION MANAGER 2 : JON ZIRKLE

DESIGNED BY: GRESHAM_SMITH_AND_PARTNERS

DESIGNER : <u>CODY CREWS</u>, <u>P.E.</u> P.E. NO. 02005-1242-14(A)

PIN NO. 100352.02

ROADWAY LENGTH BRIDGE LENGTH BOX BRIDGE LENGTH

PROJECT LENGTH

3.643 MILES 0.028 MILES 0.008 MILES ▲

3,679 MILES

▲ Not included in the project length.

SURVEY	TRAFFIC	DATA
	ADT (2017)	8980
	ADT (2037)	10070
	DHV (2037)	1108
	D	65 - 35
	T (ADT)	11 %
	T (DHV)	%
	V	60 MPH

STATE PLANE COORDINATES ARE BASED ON GPS MEASUREMENTS
OBTAINED - USING GEOID 2013 MODEL AND DATUM
ADJUSTMENT FACTOR OF 1.00

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

INDEX

STANDARD ROADWAY DRAWINGS

INDEX			SIANI	DARD ROADWAT DRAWINGS			
DESCRIPTION SHT.		DWG. NO	REV.	DESCRIPTION	DWG. NO	O REV.	DESCRIPTION
TITLE SHEET	1	STANDAR	D BRIDGE	DRAWINGS	RD-L-5	05-01-08	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
ROADWAY INDEX AND STANDARD DRAWINGS INDEX	1A - 1C	DWG. NO.	REV.	DESCRIPTION	RD-L-6	03-30-10	STANDARD LEGEND FOR EROSION PREVENTION AND
PROJECT COMMITMENTS	1D	STD-17-1		INDEX OF DRAWINGS	ND-L-0	00-00-10	SEDIMENT CONTROL
ESTIMATED BRIDGE QUANTITIES AND BRIDGE INDEX	2	STD-17-2		TERMINOLOGY	RD-L-7	05-24-12	STANDARD LEGEND FOR EROSION PREVENTION AND
ESTIMATED ROADWAY QUANTITIES	2A - 2A1	STD-17-3		GENERAL NOTES	RD01-S-11	04-04-03	SEDIMENT CONTROL DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE
ESTIMATED UTILITIES QUANTITIES	2B	STD-17-4		DESIGN SECTION LIMITS	KD01-5-11	04-04-03	SLOPE DEVELOPMENT
TYPICAL SECTIONS AND PAVING QUANTITIES	2C – 2M	STD-17-5		TYPICAL SECTION AND DETAILS	RD01-S-11A	10-15-02	ROADSIDE DITCH DETAILS FOR DESIGN AND
GENERAL NOTES AND SPECIAL NOTES	2N – 2Q	STD-17-6		TYPICAL ELEVATION			CONSTRUCTION
TABULATED QUANTITIES	2R – 2V	STD-17-7		CUR3 AND RAIL DETAILS - SKEW NOT LESS THAN 45 DEG	RD01-SE-2	10-15-02	URBAN SUPERELEVATION DETAILS
DETAIL SHEETS	2W	STD-17-8		STANDARD EDGE BEAM DETAILS FOR FILLS GREATER	RD01-SE-3	10-15-02	RURAL SUPERELEVATION DETAILS
UT SEDIMENT BASIN RESEARCH DETAIL	2X	310-17-0		THAN 3' - 8"	RD01-TS-1	02-05-16	DESIGN STANDARDS FOR LOCAL ROADS AND STREETS
PLANTING PLAN	2Y	STD-17-9		INTERIOR WALL END TREATMENTS	RD01-TS-2	10-15-02	DESIGN STANDARDS FOR COLLECTOR ROADS AND STREETS
PROPERTY MAPS AND RIGHT-OF-WAY ACQUISITION TABLES	3, 3A - 3E	STD-17-10		TYPICAL WINGWALL DETAILS AND NOTES	RD01-TS-3A	10-15-02	DESIGN STANDARDS 4-6 LANE ARTERIAL HIGHWAYS
PRESENT LAYOUTS	4 - 20	STD-17-11		WINGWALL DIMENSIONS AND QUANTITIES			WITH DEPRESSED MEDIANS
PROPOSED LAYOUTS	4A - 19A	STD-17-12		WINGWALL DIMENSIONS AND QUANTITIES	RD01-TS-3C	10-15-02	DESIGN STANDARDS 4-6 LANE ARTERIAL HIGHWAYS WITH FLUSH MEDIANS
PROPOSED PROFILES	4B - 19B	STD-17-13		WINGWALL & SPECIAL RETAINING WALL DESIGN	RD01-TS-6	10-10-16	TYPICAL CURB AND GUTTER SECTIONS WITH
PROPOSED PROFILES	13C – 16C	070 /7 //		SECTION			SHOULDER
SIDE ROADS PROFILES	21 - 24	STD-17-14		WINGWALL DIMENSIONS AND QUANTITIES	RD01-TS-6A	07-31-13	TYPICAL CURB AND GUTTER SECTIONS WITHOUT SHOULDER
PRIVATE DRIVE PROFILES	25 - 30	STD-17-15		WINGWALL & SPECIAL RETAINING WALL DESIGN SECTION	RD-UD-3	09-05-96	UNDERDRAIN DETAILS
DRAINAGE MAPS	31 – 32	STD 17 16		WINGWALL DESIGN SECTION	RD-UD-4	09-05-90	UNDERDRAIN DETAILS UNDERDRAIN LATERAL DETAILS
SPECIAL DITCH PROFILES	33	STD-17-17	06-01-11	BACKFILL AND DRAINAGE DETAILS	RD-UD-6	12-18-94	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 1:1 & 2:1
CULVERT SECTIONS	34 – 41	STD-17-18		BACKFILL DETAILS	ND-0D-0	12-10-54	SLOPES
SIDE ROADS CULVERT SECTIONS	42 - 44	STD-17-20		LOW FLOW CHANNEL CONSTRUCTION DETAILS FOR	RD-UD-7	12-18-94	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 3:1 & 4:1
EROSION AND SEDIMENT CONTROL PLANS	45, 45A – 45R			CULVERT INLET AND OUTLET	55.115.0		SLOPES
	45A1 - 45R1	STD-17-24		WARPED SLOPE DETAIL	RD-UD-8		LATERAL UNDERDRAIN ENDWALL DETAIL FOR 5.1 SLOPES
	45A2 - 45R2	STD-17-25		STAGE CONSTRUCTION JOINT DETAIL (FILL ABOVE TOP OF SLAB NOT GREATER THAN 3'-8")	RD-UD-9	12-18-94	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 6:1
ENVIRONMENTAL AND MITIGATION VIOLES	45A3 - 45R3	STD-17-26		EXTENSION DETAILS	5504.0.445	40.45.00	SLOPES
ENVIRONMENTAL AND MITIGATION NOTES TRAFFIC CONTROL PLANS WITH CONSTRUCTION	45S	STD-17-27		EXTENSION DETAILS FOR SCOURED OUTLET	RD01-S-113	10-15-02	DESIGN AND CONSTRUCTION DETAILS FOR ROCK CUT SLOPE AND CATCHMENT
PHASING NOTES	46, 46A – 46Z	STD-17-28		END SECTION DETAILS	RD01-SD-1		INTERSECTION SIGHT DISTANCE DESIGN AND GENERAL
PRASING NOTES	46, 46A – 46Z 46AA – 46AH	STD-17-29		PRECAST BOX CULVERT DETAILS	No. 20 1 1 10 10 10 10		NOTES
SIGNING AND PAVEMENT MARKING PLANS	47, 47A – 47Q	STD-17-34		INTERNAL ENERGY DISSIPATOR FOR BOX AND PIPE CULVERTS	RD01-SD-2		INTERSECTION SIGHT DISTANCE LANDSCAPE AND OBSTRUCTION
SIGN SCHEDULE SHEETS	48, 48A – 48D	STD-17-51	05-01-14	BOX BRIDGE, 1 BARREL AT 6', CLEAR HTS. 3' - 6', 0 - 60'	RD01-SD-3		INTERSECTION SIGHT DISTANCE 2-LANE ROADWAYS
SOIL SHEETS	49, 49A – 49Z	310-17-31	03-01-14	FILL	RD01-SD-4		INTERSECTION SIGHT DISTANCE 5-LANE AND 4-LANE UNDIVIDED ROADWAYS
	49AA – 49AU	STD-17-52		BOX BRIDGE, 1 BARREL AT 8', CLEAR HTS. 3' - 5', 0 - 60' FILL	RD01-SD-5		INTERSECTION SIGHT DISTANCE 4-LANE DIVIDED
ROADWAY CROSS SECTIONS	50 - 238	STD-17-53		BOX BRIDGE, 1 BARREL AT 8', CLEAR HTS. 6' - 8', 0 - 60'			HIGHWAYS
SIDE ROAD CROSS SECTIONS	239 - 284			FILL	RD01-TS-1A		DESIGN STANDARDS FOR LOW-VOLUME LOCAL ROADS (ADT<=400)
UTILITIES INDEX, UTILITY OWNERS, AND UTILITY SHEETS	U1-1	STD-17-81		BOX BRIDGE, 2 BARRELS AT 14', CLEAR HTS. 12' - 14', 0 - 60' FILL	DRAINAG	E - CULVE	RTS AND ENDWALL
STORM WATER POLLUTION PREVENTION PLAN (SWPPP) INDEX	S-1	STD-17-141		SLAB BRIDGE, 2 BARRELS AT 14', CLEAR HTS. 12' - 14', 0 - 60' FILL	D-PB-1	01-02-13	STANDARD DETAILS FOR CONCRETE PIPE INSTALLATION
LETTERS "I" AND "O" NOT USED.		ROADWA	Y DESIGN	STANDARDS	D-PE-1	02-12-76	TYPE "A" CONCRETE ENDWALL 2:1 SLOPE, 36" TO 78"
		RD-A-1	12-18-99	STANDARD ABBREVIATIONS	D-PE-4	02-03-16	STRAIGHT CONCRETE ENDWALL
		RD-L-1	10-26-94	STANDARD LEGEND	D-PE-18A	01-06-15	18" CONCRETE ENDWALL CROSS DRAIN (FOR 3:1, 4:1, &
		RD-L-2	09-05-01	STANDARD LEGEND FOR UTILITY INSTALLATIONS			6:1 SLOPES)

D-PE-18B

18" CONCRETE ENDWALL CROSS DRAIN (FOR 3:1, 4:1, & 6:1 SLOPES)

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	NH-16 (54)	1 A

UNOFFICIAL **SET** NOT FOR **BIDDING**



STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

> INDEX AND STANDARD DRAWINGS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	NH-16 (54)	1 B

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SEALED BY SEALED BY AGRICULTURE
THE RED WAY
77.10.1165.45.54.34 07. TENNY 05/05/2017

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

INDEX AND STANDARD DRAWINGS

DWG. NO	REV.	DESCRIPTION	DWG. NO	REV.	DESCRIPTION	DWG. NO	REV.	DESCRIPTION
DRAINAGE	- CIII VE	RTS AND ENDWALL (CONT'D.)	D-CB-42RB	03-11-14	STANDARD PRECAST CIRCULAR NO. 42 CATCH BASIN	T-M-15A	01-30-15	ASPHALT SHOULDER RUMBLE STRIP INSTALLATION
DPE-24A	01-21-16	24" CONCRETE ENDWALL CROSS DRAIN (FOR 3:1, 4:1, &	D-CB-42S	08-01-12	STANDARD 32" X 32" SQUARE CONCRETE NO. 42 CATCH BASIN	T-M-16	01-30-15	DETAILS FOR NON-ACCESS CONTROLLED ROUTES ASPHALT SHOULDER RUMBLE STRIPE INSTAL_ATION
D-PE-24B		6:1 SLOPES) 24" CONCRETE ENDWALL CROSS DRAIN (FOR 3:1, 4:1, &	D-CB-42SB	03-11-14	STANDARD 4' X 4' SQUARE CONCRETE NO. 42 CATCH			DETAILS FOR NON-ACCESS CONTROLLED ROUTES
		6:1 SLOPES)			BASIN	T-PBR-1	06-30-09	INTERCONNECTED PORTABLE BARRIER RAIL
D-PE-30A	10-10-16	30" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE (FOR 3:1, 4:1, & 6:1 SLOPES)	D-CB-42SC	03-11-14	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 42 CATCH BASIN	T-PBR-2	11-01-11	DETAIL FOR VERTICAL PANELS AND FLEXIBLE DELINEATORS
D-PE-30B		30" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE (FOR 3:1, 4:1, & 6:1 SLOPES)	D-CB-42SD	03-11-14	STANDARD 7' X 7' SQUARE CONCRETE NO. 42 CATCH BASIN	T-S-7	02-12-91	HIGHWAY SHIELDS USED ON INTERSTATE AND U.S. NUMBERED ROUTES
D-PE-36A	06-14-13	36" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE (FOR 3:1, 4:1, & 6:1 SLOPES)	D-CBB-42	05-27-01	CAST IRON GRATE DETAILS FOR NOS. 42, 43 & 44 TYPE CATCH BASINS	T-S-8	07-15-91	HIGHWAY SHIELDS USED ON STATE NUMBERED RCUTES AND ARROWS
D-PE-36B		36" CONCRETE ENDWALL CROSS DRAIN WITH STEEL	D-MH-2	02-02-16	STANDARD MASONRY & PRECAST NO. 3 MANHOLE	T-S-9	06-10-14	STANDARD LAYOUT GROUND MOUNTED SIGNS
		PIPE GRATE (FOR 3:1, 4:1, & 6:1 SLOPES)	ROADWAY	AND PA	/EMENT APPURTENANCES	T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS
D-PE-42A	06-14-13	42" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE (FOR 3:1, 4:1, & 6:1 SLOPES)	RP-D-15	04-08-16	DETAILS OF STANDARD CONCRETE DRIVEWAYS	T-S-11	06-06-11	ALUMINUM-STEEL DESIGN
D-PE-42B		42" CONCRETE ENDWALL CROSS DRAIN WITH STEEL	RP-D-16	04-08-16	DETAILS OF LOWERED STANDARD CONCRETE			DELINEATOR AND MILEPOST DETAILS GROUND MOUNTED ROADSIDE SIGN AND DETAILS
		PIPE GRATE (FOR 3:1, 4:1, & 6:1 SLOPES)			DRIVEWAYS	T-S-16	07-02-15	
D-PE-48A	06-14-13	48" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE (FOR 3:1, 4:1, & 6:1 SLOPES)	RP-DHO-1	10-26-93	MEDIAN OPENINGS ON 4-LANE DIVIDED HIGHWAY	T-S-16A	07-02-15	GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
D-PE-48B		48" CONCRETE ENDWALL CROSS DRAIN WITH STEEL	RP-I-5	12-18-96	EXAMPLES OF STREET AND ALLEY INTERSECTIONS	T-S-17	07-02-15	STANDARD GROUND MOUNTED SIGN USING
D-1 L-40D		PIPE GRATE (FOR 3:1, 4:1, & 6:1 SLOPES)	RP-NMC-10	07-29-03	STANDARD VERTICAL (NONMOUNTABLE) CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS			PERFORATED/KNOCKOUT SQUARE TUBE
D-PE-9B		GEN. DIMENSIONS AND QUANTITIES, SIDE TAPER INLETS CONCRETE ENDWALLS - TYPE "B" (PIPE SIZES 15" TO 78"	RP-NMC-11	02-28-02	STANDARD VERTICAL (NONMOUNTABLE) CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS	T-S-18	02-14-14	END OF ROADWAY AND DEAD END SIGNS, METAL BARRICADES (TYPE III) & WORK ZONE SPEED SIGNS
		ALL SKEWS 2:1 & 4:1 SLOPES)	RP-R-1	05-27-01	STANDARD RAMPS TO SIDE ROADS	T-S-19	07-19-15	STANDARD MEMBERS BENDAWAY SIGN SUPPORTS STEEL DESIGN
D-PE-9C		BILL OF STEEL (SHEET 1 OF 4) CONCRETE ENDWALLS TYPE "B" (FOR CONCRETE ROUND AND SIDE TAPERED INLET, PIPE SIZE 15" - 78", ALL SKEW, 2:1 SLOPE)	SAFETY D			T-WZ-10	04-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
D-PE-9D		BILL OF STEEL (SHEET 2 OF 4) CONCRETE ENDWALLS	S-PL-2	10-10-16	SAFETY PLAN AT SIDEROADS OR PRIVATE DRIVES	T-WZ-11	03-05-17	ONE LANE CLOSURE DETAIL ON DIVIDED HIGHWAYS
		TYPE "B" (FOR CONCRETE ROUND AND SIDE TAPERED INLET, PIPE SIZES 15' - 78", ALL SKEWS, 4:1 SLOPE)	S-PL-6	10-10-16	SAFETY PLAN SAFETY HARDWARE PLACEMENT ON OUTSIDE EDGE	T-WZ-18	03-05-17	SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS
D-PE-9E		BILL OF STEEL (SHEET 3 OF 4) CONCRETE ENDWALLS TYPE "B" (FOR STEEL ROUND AND SIDE TAPERED INLET.	S-CC-1	03-28-17	CRASH CUSHION	T-WZ-19	03-05-17	MEDIAN CROSS-OVER DETAIL ON DIVIDED HIGHWAYS
		PIPE SIZE 15" - 78", ALL SKEWS, 2:1 SLOPE)	S-GR31-1	03-28-17	W-BEAM GUARDRAIL	T-WZ-20	12-18-99	GEOMETRIC MEDIAN CROSS-OVER DETAIL ON DIVIDED
D-PE-9F		BILL OF STEEL (SHEET 4 OF 4) CONCRETE ENDWALLS	S-GR31-1A		W-BEAM BARRIER FASTENING HARDWARE	1 442 20	12 10 00	HIGHWAYS
		TYPE "B" (FOR STEEL ROUND AND SIDE TAPERED INLET, PIPE SIZE 15" TO 78", ALL SKEWS, 4:1 SLOPE)	S-GRS-2	05-25-16	SPECIAL CASE: GUARDRAIL ATTACHMENT TO CONCRETE DECKS	T-WZ-21	03-05-17	LANE CLOSURE WITH LEFT HAND MERGE AND LANE SHIFT
D-PE-99	11-01-13	PIPE GRATE & SKEWED CONNECTION CETAILS FOR "U" ENDWALLS	S-GRC-1	10-10-16	GUARDRAIL CONNECTION TO BRIDGE ENDS OR BARRIER WALL	T-WZ-30	09-01-05	TRAFFIC CONTROL 2-LANE, 2-WAY DIVERSION (40 MPH OR LESS)
D-SEW-1A	06-14-13	SIDE DRAIN CONCRETE ENDWALL WITH STEEL PIPE (GRATE FOR 15" AND 18" PIPES)(6:1 SLCPE)	S-GRT-2	03-28-17	TYPE 38 GUARDRAIL END TERMINAL	T-WZ-36	03-05-17	LANE CLOSURE ON LOW-VOLUME 2-LANE HIGHWAY
D-SEW-12D	06-14-13	CONCRETE ENDWALL TYPE "SD" WITH STEEL PIPE	S-GRT-2P	10-10-16	EARTH PAD FOR TYPE 38 AND TYPE 21 TERMINALS	T-WZ-40	03-05-17	
		(GRATE FOR 15" AND 18" PIPES)(12:1 SLOPE)	S-GRT-2R		EARTH PAD FOR TYPE 38 AND TYPE 21 TERMINALS			INTERSECTIONS
DRAINAGE	-CATCH I	BASINS AND MANHOLES			(RETROFIT)	T-WZ-41	03-05-17	LEFT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
D-CB-38RB	03-11-14	STANDARD PRECAST CIRCULAR NO. 38 CATCH BASIN	S-GRT-3	03-28-17	TYPE 21 GUARDRAIL END TERMINAL	T-WZ-42	03-05-17	CENTER LANE CLOSURES AT NEAR SIDE OF
D-CB-38S	08-01-12	STANDARD 32" X 32" SQUARE CONCRETE NO. 38 CATCH	S-GRA-3	03-28-17	TYPE 13 GUARDRAIL ANCHOR			INTERSECTIONS
D OD 000D	00 11 11	BASIN	S-GRA-4	03-28-17	IN-LINE GUARDRAIL ANCHOR	EROSION	PREVENT	ON AND SEDIMENT CONTROL
D-CB-38SB	03-11-14	STANDARD 4' X 4' SQUARE CONCRETE NO. 38 CATCH BASIN	S-RP-2	02-08-16	STANDARD CONCRETE RIGHT-OF-WAY MARKERS	EC-STR-2	08-01-12	SEDIMENT FILTER BAG
D-CB-38SC	03-11-14	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 38 CATCH	S-F-1	05-24-12	HIGH VISIBILITY FENCE	EC-STR-3B	08-01-12	SILT FENCE
		BASIN	TRAFFIC C	ONTROL	APPURTENANCES	EC-STR-3C	08-01-12	SILT FENCE WITH WIRE BACKING
D-CB-39RB	03-11-14	STANDARD PRECAST CIRCULAR NO. 39 CATCH BASIN	T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD	EC-STR-3E	04-01-08	SILT FENCE FABRIC JOINING DETAILS
D-CB-39S	08-01-12	STANDARD 4' X 4' SQUARE CONCRETE NO. 39 CATCH BASIN	T-M-1	07-24-14	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS	EC-STR-6	05-06-16	ROCK CHECK DAM
D-CB-39SC	03-11-14	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 39 CATCH	TM2	10 10 16	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL	EC-STR-6A	05-06-16	ENHANCED ROCK CHECK DAM
	3- 11 11	BASIN	T-M-2	10-10-16	ROADS	EC-STR-11	08-01-12	CULVERT PROCTECTION TYPE 1
D-CB-39SD	03-11-14	STANDARD 7' X 7' SQUARE CONCRETE NO. 39 CATCH BASIN	T-M-3	07-24-14	MARKING STANDARDS FOR TRAFFIC ISLANDS, MEDIANS	EC-STR-15	08-01-12	SEDIMENT BASIN
D-CB-39SE	03-11-14	STANDARD 9' X 9' SQUARE CONCRETE NO. 39 CATCH	T-M-4	10-10-16	& PAVED SHOULDERS ON CONVENTIONAL ROADS STANDARD INTERSECTION PAVEMENT MARKINGS	EC-STR-16	08-01-12	SEDIMENT BASINS RISER AND COLLAR APPURTENANCES
		BASIN				EC-STR-17	08-01-12	SEDIMENT BASIN EMBANKMENT DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	NH-16 (54)	1 C

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SEALED BY AGRICULTURE AGRICULTURE OF TENNES AND 105/05/2017

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

INDEX AND STANDARD DRAWINGS

DWG. NO REV. DESCRIPTION

EROSION PREVENTION AND SEDIMENT CONTROL (CONT'D.)

EROSION	PREVENTI	ON AND SEDIMENT CONTROL (CONT'D.)
EC-STR-18		SEDIMENT BASIN FLOATING OUTLET STRUCTURE
EC-STR-19	04-01-08	CATCH BASIN PROTECTION
EC-STR-25	08-01-12	TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD
EC-STR-27	08-01-12	TEMPORARY SLOPE DRAIN AND BERM
EC-STR-30		INSTREAM DIVERSION (WITHOUT TRAFFIC)
EC-STR-30A		INSTREAM DIVERSION (WITH TRAFFIC)
EC-STR-31	08-01-12	TEMPORARY DIVERSION CHANNEL
EC-STR-31A	04-01-08	TEMPORARY DIVERSION CHANNEL DESIGN
EC-STR-32	08-01-12	TEMPORARY DIVERSION CULVERTS
EC-STR-33	08-01-12	SUSPENDED PIPE DIVERSON (DOWNSTREAM)
EC-STR-33A	08-01-12	SUSPENDED PIPE DIVERSON (UPSTREAM)

EC-STR-34 08-01-12 EROSION CONTROL BLANKET FOR SLOPE INSTALLATION

EC-STR-36 08-01-12 TURF REINFORCEMENT MAT FOR CHANNEL INSTALLATION

EC-STR-37 06-10-14 SEDIMENT TUBE

EC-STR-40 CATCH BASIN FILTER ASSEMBLY FOR CIRCULAR

STRUCTURES

EC-STR-41 CATCH BASIN FILTER ASSEMBLY (TYPE 1)

EC-STR-41A CATCH BASIN FILTER ASSEMBLY (TYPE 1) SLIPCOVER

DETAILS

EC-STR-42 CATCH BASIN FILTER ASSEMBLY (TYPE 2)

EC-STR-42A CATCH BASIN FILTER ASSEMBLY (TYPE 2) SLIPCOVER

DETAILS

DRAINAGE - NATURAL STREAM DESIGN

D-NSD-34 LIVE STAKES AND SILTATION

D-NSD-35 LIVE FASCINES

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PROJECT COMMITMENTS							
COMMITMENT ID	SOURCE DIVISON	DESCRIPTION	STA. / LOCATION				
EDHZ003	ENVIRONMENT	ASBESTOS CONTAINING MATERIAL (ACM) SURVEY WAS CONDUCTED AT BRIDGE NO. 02SR0160031, SR-16 OVER THOMPSON CREEK, NO ACM WAS DETECTED; HOWEVER, THIS BRIDGE HAS ASSUMED TRANSITE DECK DRAINS. ABATEMENT OF THIS MATERIAL SHOULD BE ACCOMPLISHED PER SP202ACM SPECIAL PROVISION REGARDING REMOVAL OF ASBESTOS-CONTAINING MATERIALS. ACM ABATEMENT SHOULD BE COMPLETED PRIOR TO ANY DEMOLITION ACTIVITIES. STATE OF TENNESSEE ASBESTOS ACCREDITATION REQUIREMENTS (TCA 1200-01-20) MANDATES THAT ACM ABATEMENT WORK BE PERFORMED BY AN ACCREDITED FIRM (CONTRACTOR) USING ACCREDITED ABATEMENT WORKERS AND SUPERVISORS. PRIOR TO THE DEMOLITION OF ANY STRUCTURE (BRIDGE OR BUILDING), THE CONTRACTOR IS REQUIRED TO SUBMIT THE NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS STANDARD 10-DAY NOTICE OF DEMOLITION TO THE TENNESSEE DIVISION OF AIR POLLUTION CONTROL (STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (01/01/15), SECTIONS 107.08 D AND 202.03).	FROM STA. 33+44 TO STA. 34+94 S.R. 16 @ THOMPSON CREEK				

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	NH-16 (54)	1 D

UNOFFICIAL SET NOT FOR BIDDING



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROJECT COMMITMENTS

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

_		ESTIMATED ROADWAY QUAN	ITITIES			
	ITEM NO.	DESCRIPTION	UNIT	NO ALT. QUANTITY	ALT."A" QUANTITY	ALT."B" QUANTITY
r	105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1		
L	201-01	CLEARING AND GRUBBING	LS	1		
L	202-01	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1		
ŀ	202-01.50	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	EACH	4		
ŀ	202-06.02 202-06.03	REMOVAL OF BUILDINGS (TRACT NO.60) REMOVAL OF BUILDINGS (TRACT NO.61)	LS LS	1		
ŀ	202-06.03	REMOVAL OF BUILDINGS (TRACT NO.61) REMOVAL OF BUILDINGS (TRACT NO.64)	LS	1		
ŀ	202-06.05	REMOVAL OF BUILDINGS (TRACT NO.72)	LS	1		
t	202-06.06	REMOVAL OF BUILDINGS (TRACT NO.86S)	LS	1		
r	202-03.01	REMOVAL OF ASPHALT PAVEMENT	S.Y.	9328		
	202-13	WATER WELL ABANDONMENT	EACH	1		
L	203-01	ROAD & DRANAGE EXCAVATION (UNCLASSIFIED)	C.Y.	1099283		
L	203-02.01	BORROW EXCAVATION (GRADED SOLID ROCK)	TON	15194		
ŀ	203-04	PLACING AND SPREADING TOPSOIL	C.Y.	50228		
_	203-04.01	PLACING SPREADING SOIL FOR LANDSCAPING WATER	C.Y. M.G.	684 1743	4913	4374
_	203-06	CONSTRUCTION OF HAUL ROAD	LS	1743	4913	43/4
H	204-08	FOUNDATION FILL MATERIAL	C.Y.	169		
	204-08.01	BACKFILL MATERIAL (FLOWABLE FILL)	C.Y.	388		
	209-02.07	18" TEMPORARY SLOPE DRAIN	L.F.	1625		
	209-03.45	STREAM MITIGATION-LIVE FASCINES (SPECIES)	L.F.	3180		
	209-05	SEDIMENT REMOVAL	C.Y.	3179		
	209-06.02	12" COIR LOG (FOR LOW CHANNEL FLOW)	L.F.	400		
Ĺ	209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	67620		
L	209-08.03	TEMPORARY SILT FENCE (WITHOUT BACKING)	L.F.	35090		
F	209-08.07	ROCK CHECK DAM	EACH	380		
H	209-08.08	ENHANCED ROCK CHECK DAM SANDBAGS	EACH BAG	193 7705		
ŀ	209-09.01	SEDIMENT FILTER BAG (15' X 15')	EACH	16		
	209-09.03	8" SKIMMER W/ 6" HEAD	EACH	1		
H	209-20.03	POLYETHYLENE SHEETING (6 ML. MINIMUM)	S.Y.	13124		
r	209-40.30	CATCH BASIN PROTECTION (TYPE A)	EACH	5		
r	209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	15		
L	209-40.41	CATCH BASIN FILTER ASSEMBLY (TYPE 1)	EACH	19		
L	209-40.42	CATCH BASIN FILTER ASSEMBLY (TYPE 2)	EACH	14		
	209-65.03	TEMPORARY DIVERSION CHANNEL	L.F.	6373		
L	209-65.04	TEMPORARY IN STREAM DIVERSION	L.F.	866	040007	170010
ŀ	303-01 303-01.01	MINERAL AGGREGATE, TYPE A BASE, GRADING D GRANULAR BACKFILL (ROADWAY)	TON	21024	219097	170612
_	303-01.01	GRANULAR BACKFILL (ROADWAY) GRANULAR BACKFILL (BRIDGES)	TON	4638 6243		
H	303-01.02	MINERAL AGGREGATE (SIZE 57)	TON	363		
	307-01.01	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A	TON	937		
r	307-01.08	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2	TON	1858		
	307-01.21	ASP. CONC. MIX(PG70-22) (BPMB-HM) GR. A-S	TON		15695	15695
	307-02.01	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A	TON		20054	20054
	307-02.08	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	TON		13129	13129
Ĺ	309-01.01	MINERAL AGGREGATE (A-CBC)	TON			31455
L	309-01.02	PORTLAND CEMENT (A-CBC)	TON			1214
H	309-02	BITUMINOUS MATERIAL (A-CBC) BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON TON	15	262	101 262
F	402-01 402-02	AGGREGATE FOR COVER MATERIAL (PC)	TON	45 179	1039	1039
H	402-02	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	10	1039	1039
H	405-01.01	BITUMINOUS MATERIAL (BSC)	TON	17	100	100
r	405-01.02	MINERAL AGGREGATE (BSC)	TON	143		
r	407-20.05	SAW CUTTING ASPHALT PAVEMENT	L.F.	22		
ſ	411-01.07	ACS MIX (PG64-22) GRADING E SHOULDER	TON	368	4442	4442
Ĺ	411-01.10	ACS MIX(PG64-22) GRADING D	TON	1767		
Ĺ	411-02.10	ACS MIX(PG70-22) GRADING D	TON		7668	7668
L	411-12.01	SCORING SHOULDERS (CONTINUOUS)(16IN WIDTH)	L.M.	5		
F	411-12.02	SCORING SHOULDERS (NON-CONTINUOUS)(16IN WIDTH)	L.M.	10		
H	415-01.02 502-04.01	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	7200 252		
H	604-01.01	SAWING CONCRETE PAVEMENT (FULL DEPTH) CLASS A CONCRETE (ROADWAY)	L.F. C.Y.	728		
H	604-01.01	STEEL BAR REINFORCEMENT (ROADWAY)	LB.	154734		
H	604-01.02	CLASS A CONCRETE (BOX BRIDGES)	C.Y.	1203		
F	604-02.02	STEEL BAR REINFORCEMENT (BOX BRIDGES)	LB.	174145		
H	604-02.41	ENERGY DISSIPATOR (TYPE USBR VI, 18" PIPE)	EACH	1		
r	604-02.42	ENERGY DISSIPATOR (TYPE USBR VI, 24" PIPE)	EACH	1		
Γ	604-02.43	ENERGY DISSIPATOR (TYPE USBR VI, 30" RCP)	EACH	3		
ľ	604-02.44	ENERGY DISSIPATOR (TYPE USBR VI, 36" PIPE)	EACH	3		
Ĺ	604-02.45	ENERGY DISSIPATOR (TYPE USBR VI, 42" PIPE)	EACH	1		
Ĺ	604-02.46	ENERGY DISSIPATOR (TYPE USBR VI, 48" PIPE)	EACH	1		
L	604-02.47	ENERGY DISSIPATOR (TYPE USBR VI, 54" PIPE)	EACH	1		
	604-02.48	ENERGY DISSIPATOR (TYPE USBR VI, 60" PIPE) PORTLAND CEMENT GROUT	EACH C.Y.	1 2		
L	604-15.01					

	ESTIMATED ROADWAY QUANTITIES		
ITEM NO	DESCRIPTION	UNIT	QUANTITY
607-03.0	18" CONCRETE PIPE CULVERT (CLASS III)	L.F.	1095
607-03.0	18" CONCRETE PIPE CULVERT (CLASS IV) JACKED-IN-PLACE	L.F.	111
607-03.3	18" PIPE CULVERT	L.F.	586
607-05.0	24" CONCRETE PIPE CULVERT (CLASS III)	L.F.	426
607-05.3	24" PIPE CULVERT	L.F.	455
607-06.0	30" CONCRETE PIPE CULVERT (CLASS III)	L.F.	406
607-06.0	30" CONCRETE PIPE CULVERT(CLASS IV)JACKED-IN-PLACE	L.F.	144
607-07.0	36" CONCRETE PIPE CULVERT (CLASS III)	L.F.	312
607-07.0	36" CONCRETE PIPE CULVERT (CLASS IV) JACKED-IN-PLACE	L.F.	80
607-08.0	42" CONCRETE PIPE CULVERT (CLASS III)	L.F.	130
607-08.0	42" CONCRETE PIPE CULVERT(CLASS IV) JACKED-IN-PLACE	L.F.	70
607-09.0	48" CONCRETE PIPE CULVERT (CLASS III)	L.F.	126
607-11.0	60" CONCRETE PIPE CULVERT (CLASS V)	L.F.	372
607-13.0	72" CONCRETE PIPE CULVERT (CLASS III)	L.F.	214
607-16.0	23"X 14" HORIZONTAL OVAL CONCRETE PIPE CULVERT	L.F.	186
607-39.0	18" PIPE CULVERT (SIDE DRAIN)	L.F.	985
607-39.0	30" PIPE CULVERT (SIDE DRAIN)	L.F.	27
611-02.1	JUNCTION BOX, TYPE 3	EACH	1
611-07.0	CLASS A CONCRETE (PIPE ENDWALLS)	C.Y.	20
611-07.0	STEEL BAR REINFORCEMENT (PIPE ENDWALLS)	LB.	389
611-07.3	18IN ENDWALL (SIDE DRAIN)	EACH	42
611-07.3	24IN ENDWALL (SIDEDRAIN)	EACH	11
611-07.5	18" ENDWALL (CROSS DRAIN) 3:1	EACH	4
611-07.5	18" ENDWALL (CROSS DRAIN) 4:1	EACH	4
611-07.5	18" ENDWALL (CROSS DRAIN) 6:1	EACH	4
611-07.5	24" ENDWALL (CROSS DRAIN) 3:1	EACH	4
611-07.5	24" ENDWALL (CROSS DRAIN) 4:1	EACH	3
611-07.5	24" ENDWALL (CROSS DRAIN) 6:1	EACH	1
611-07.6	30" ENDWALL (CROSS DRAIN) 3:1	EACH	1
611-07.6	30" ENDWALL (CROSS DRAIN) 6:1	EACH	5
611-07.6	36" ENDWALL (CROSS DRAIN) 3:1	EACH	2
611-07.6	42" ENDWALL (CROSS DRAIN) 6:1	EACH	1
611-07.7	48" ENDWALL (CROSS DRAIN) 6:1	EACH	1
611-07.7	18" ENDWALL (MEDIAN DRAIN) 12:1	EACH	4
611-38.0	CATCH BASINS, TYPE 38, 0' - 4' DEPTH	EACH	9
611-38.0	CATCH BASINS, TYPE 38, > 4' - 8' DEPTH	EACH	3
611-39.0	CATCH BASINS, TYPE 39, 0' - 4' DEPTH	EACH	6
611-39.0	CATCH BASINS, TYPE 39, 8' - 12' DEPTH	EACH	1
611-42.0	CATCH BASINS, TYPE 42, 0' - 4' DEPTH	EACH	2
621-03.0	18" TEMPORARY DRAINAGE PIPE	L.F.	2403
621-03.0	24" TEMPORARY DRAINAGE PIPE	L.F.	68
621-03.0	30" TEMPORARY DRAINAGE PIPE	L.F.	46
621-03.0	36' TEMPORARY DRAINAGE PIPE	L.F.	140
621-03.0	48' TEMPORARY DRAINAGE PIPE	L.F.	220
621-03.0	60" TEMPORARY DRAINAGE PIPE	L.F.	212
701-02	CONCRETE DRIVEWAY	SF	31530
705-01.0	GUARDRAIL AT BRIDGE ENDS	L.F.	54
	METAL BEAM GUARD FENCE	L.F.	19
705-01.0	METAL BLAM GOARD I LINCE		
705-01.0 705-06.0	SINGLE GUARDRAIL (TYPE 2) (MASH TL-3)	L.F.	10794
			10794 52
705-06.0	SINGLE GUARDRAIL (TYPE 2) (MASH TL-3)	L.F.	
705-06.0 705-04.5	SINGLE GUARDRAIL (TYPE 2) (MASH TL-3) PORTABLE BARRIER RAIL DELINEATOR	L.F. EACH	52
705-06.0 705-04.5 705-06.1	SINGLE GUARDRAIL (TYPE 2) (MASH TL-3) PORTABLE BARRIER RAIL DELINEATOR GR TERMINAL TRAILING END (TYPE 13) MASH TL-3	L.F. EACH EACH	52 23
705-06.0 705-04.5 705-06.1 705-06.1	SINGLE GUARDRAIL (TYPE 2) (MASH TL-3) PORTABLE BARRIER RAIL DELINEATOR GR TERMINAL TRAILING END (TYPE 13) MASH TL-3 GR TERMINAL (IN-LINE) MASH TL-3	L.F. EACH EACH	52 23 12
705-06.0 705-04.5 705-06.1 705-06.3	SINGLE GUARDRAIL (TYPE 2) (MASH TL-3) PORTABLE BARRIER RAIL DELINEATOR GR TERMINAL TRAILING END (TYPE 13) MASH TL-3 GR TERMINAL (IN-LINE) MASH TL-3 GR TERMINAL (TYPE 21) MASH TL-2	L.F. EACH EACH EACH	52 23 12 10
705-06.0 705-04.5 705-06.1 705-06.3 705-06.2	SINGLE GUARDRAIL (TYPE 2) (MASH TL-3) PORTABLE BARRIER RAIL DELINEATOR GR TERMINAL TRAILING END (TYPE 13) MASH TL-3 GR TERMINAL (IN-LINE) MASH TL-3 GR TERMINAL (TYPE 21) MASH TL-2 TANGENT ENERGY ABSORBING TERM MASH TL-3	L.F. EACH EACH EACH EACH	52 23 12 10 15
705-06.0 705-04.5 705-06.1 705-06.3 705-06.2 705-11.0	SINGLE GUARDRAIL (TYPE 2) (MASH TL-3) PORTABLE BARRIER RAIL DELINEATOR GR TERMINAL TRAILING END (TYPE 13) MASH TL-3 GR TERMINAL (IN-LINE) MASH TL-3 GR TERMINAL (TYPE 21) MASH TL-2 TANGENT ENERGY ABSORBING TERM MASH TL-3 GUARDRAIL AT BRIDGE ENDS (POWDER COATED)	L.F. EACH EACH EACH EACH L.F.	52 23 12 10 15 54
705-06.0 705-04.5 705-06.1 705-06.3 705-06.2 705-11.0 705-11.0	SINGLE GUARDRAIL (TYPE 2) (MASH TL-3) PORTABLE BARRIER RAIL DELINEATOR GR TERMINAL TRAILING END (TYPE 13) MASH TL-3 GR TERMINAL (IN-LINE) MASH TL-3 GR TERMINAL (TYPE 21) MASH TL-2 TANGENT ENERGY ABSORBING TERM MASH TL-3 GUARDRAIL AT BRIDGE ENDS (POWDER COATED) SINGLE GUARDRAIL (TYPE 2) (POWDER COATED)	L.F. EACH EACH EACH EACH L.F. L.F.	52 23 12 10 15 54 613
705-06.0 705-04.5 705-06.1 705-06.3 705-06.2 705-11.0 705-11.0	SINGLE GUARDRAIL (TYPE 2) (MASH TL-3) PORTABLE BARRIER RAIL DELINEATOR GR TERMINAL TRAILING END (TYPE 13) MASH TL-3 GR TERMINAL (IN-LINE) MASH TL-3 GR TERMINAL (TYPE 21) MASH TL-2 TANGENT ENERGY ABSORBING TERM MASH TL-3 GUARDRAIL AT BRIDGE ENDS (POWDER COATED) SINGLE GUARDRAIL (TYPE 2) (POWDER COATED) GUARDRAIL TERMINAL (TYPE 13) (POWDER COATED)	L.F. EACH EACH EACH EACH L.F. L.F. EACH	52 23 12 10 15 54 613
705-06.0 705-04.5 705-06.1 705-06.3 705-06.2 705-11.0 705-11.0 705-11.1	SINGLE GUARDRAIL (TYPE 2) (MASH TL-3) PORTABLE BARRIER RAIL DELINEATOR GR TERMINAL TRAILING END (TYPE 13) MASH TL-3 GR TERMINAL (IN-LINE) MASH TL-3 GR TERMINAL (TYPE 21) MASH TL-2 TANGENT ENERGY ABSORBING TERM MASH TL-3 GUARDRAIL AT BRIDGE ENDS (POWDER COATED) SINGLE GUARDRAIL (TYPE 2) (POWDER COATED) GUARDRAIL TERMINAL (TYPE 13) (POWDER COATED) TAN ENERGY ABSORB TERMINAL (NCHRP 350, TL 3)(POWDER COATED)	L.F. EACH EACH EACH EACH L.F. L.F. EACH EACH	52 23 12 10 15 54 613 1
705-06.0 705-04.5 705-06.1 705-06.3 705-06.2 705-11.0 705-11.0 705-11.1 705-20.2	SINGLE GUARDRAIL (TYPE 2) (MASH TL-3) PORTABLE BARRIER RAIL DELINEATOR GR TERMINAL TRAILING END (TYPE 13) MASH TL-3 GR TERMINAL (IN-LINE) MASH TL-3 GR TERMINAL (TYPE 21) MASH TL-2 TANGENT ENERGY ABSORBING TERM MASH TL-3 GUARDRAIL AT BRIDGE ENDS (POWDER COATED) SINGLE GUARDRAIL (TYPE 2) (POWDER COATED) GUARDRAIL TERMINAL (TYPE 13) (POWDER COATED) TAN ENERGY ABSORB TERMINAL (NCHRP 350, TL 3)(POWDER COATED) REUSABLE CRASH CUSHION WIDE (MASH TL-3)	L.F. EACH EACH EACH EACH L.F. L.F. EACH EACH	52 23 12 10 15 54 613 1 1
705-06.0 705-04.5 705-06.1 705-06.3 705-06.2 705-11.0 705-11.0 705-11.1 705-20.2 705-20.2	SINGLE GUARDRAIL (TYPE 2) (MASH TL-3) PORTABLE BARRIER RAIL DELINEATOR GR TERMINAL TRAILING END (TYPE 13) MASH TL-3 GR TERMINAL (IN-LINE) MASH TL-3 GR TERMINAL (TYPE 21) MASH TL-2 TANGENT ENERGY ABSORBING TERM MASH TL-3 GUARDRAIL AT BRIDGE ENDS (POWDER COATED) SINGLE GUARDRAIL (TYPE 2) (POWDER COATED) GUARDRAIL TERMINAL (TYPE 13) (POWDER COATED) TAN ENERGY ABSORB TERMINAL (NCHRP 350, TL 3)(POWDER COATED) REUSABLE CRASH CUSHION WIDE (MASH TL-3) TEMPORARY CRASH CUSHION (MASH TL-3)	L.F. EACH EACH EACH EACH L.F. L.F. EACH EACH EACH	52 23 12 10 15 54 613 1 1 1
705-06.0 705-04.5 705-06.1 705-06.3 705-06.2 705-11.0 705-11.0 705-11.1 705-20.2 706-01	SINGLE GUARDRAIL (TYPE 2) (MASH TL-3) PORTABLE BARRIER RAIL DELINEATOR GR TERMINAL TRAILING END (TYPE 13) MASH TL-3 GR TERMINAL (IN-LINE) MASH TL-3 GR TERMINAL (TYPE 21) MASH TL-2 TANGENT ENERGY ABSORBING TERM MASH TL-3 GUARDRAIL AT BRIDGE ENDS (POWDER COATED) SINGLE GUARDRAIL (TYPE 2) (POWDER COATED) GUARDRAIL TERMINAL (TYPE 13) (POWDER COATED) TAN ENERGY ABSORB TERMINAL (NCHRP 350, TL 3)(POWDER COATED) REUSABLE CRASH CUSHION WIDE (MASH TL-3) TEMPORARY CRASH CUSHION (MASH TL-3) GUARDRAIL REMOVED	L.F. EACH EACH EACH EACH L.F. L.F. EACH EACH EACH LACH EACH EACH EACH	52 23 12 10 15 54 613 1 1 1 1 1775
705-06.0 705-04.5 705-06.1 705-06.3 705-06.2 705-11.0 705-11.0 705-11.1 705-20.2 705-20.2 706-01 707-06.0	SINGLE GUARDRAIL (TYPE 2) (MASH TL-3) PORTABLE BARRIER RAIL DELINEATOR GR TERMINAL TRAILING END (TYPE 13) MASH TL-3 GR TERMINAL (IN-LINE) MASH TL-3 GR TERMINAL (TYPE 21) MASH TL-2 TANGENT ENERGY ABSORBING TERM MASH TL-3 GUARDRAIL AT BRIDGE ENDS (POWDER COATED) SINGLE GUARDRAIL (TYPE 2) (POWDER COATED) GUARDRAIL TERMINAL (TYPE 13) (POWDER COATED) TAN ENERGY ABSORB TERMINAL (NCHRP 350, TL 3)(POWDER COATED) REUSABLE CRASH CUSHION WIDE (MASH TL-3) TEMPORARY CRASH CUSHION (MASH TL-3) GUARDRAIL REMOVED REMOVAL OF FENCE (CHAIN LINK)	L.F. EACH EACH EACH EACH L.F. L.F. EACH EACH EACH LACH EACH EACH EACH EACH EACH	52 23 12 10 15 54 613 1 1 1 1 775 1472

SEE SHEET 2A1 FOR FOOTNOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	NH-16 (54)	2A

REV. 06/21/17 REVISED ITEMS NOS. 705-01.01, 705-06.01, 705-06.10, AND 705-06.20. ADDED ITEMS NOS. 705-11.01, 705-11.03, 705-11.08, AND 705-11.11.

> UNOFFICIAL SET NOT FOR



BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY QUANTITIES

.0.T.	NOI	
TENNESSEE D.	DESIGN DIVISION	

		ESTIMATED ROADWAY QUANTITIES		
	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
(35)	709-05.05	MACHINED RIF-RAP (CLASS A-3)	TON	1021
(6)(11)	709-05.06	MACHINED RIF-RAP (CLASS A-1)	TON	9620
(24)	709-05.08	MACHINED RIF-RAP (CLASS B)	TON	2600
	709-05.09	MACHINED RIF-RAP (CLASS C)	TON	380
	710-02 710-05	AGGREGATE UNDERDRAINS (WTH PIPE) LATERAL UNDERDRAIN	L.F.	38554 6169
	710-06.11	LATERAL UNDERDRAIN ENDWALL (2:1)	EACH	4
	710-06.12	LATERAL UNDERDRAIN ENDWALL (3:1)	EACH	21
	710-06.13	LATERAL UNDERDRAIN ENDWALL (4:1)	EACH	30
	710-06.14	LATERAL UNDERDRAIN ENDWALL (5:1)	EACH	1
(12)	710-06.15 712-01	LATERAL UNDERDRAIN ENDWALL (6:1) TRAFFIC CONTROL	EACH LS	124
(12)	712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	2496
	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	313
(13)	712-05.01	WARNING LIGHTS (TYPE A)	EACH	79
(13)	712-05.03	WARNING LIGHTS (TYPE C)	EACH	79
(14)	712-06 712-06.01	SIGNS (CONSTRUCTION) VERTICAL PANELS	S.F.	1522 174
	712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	96
	712-08.03	ARROW BOARD (TYPE C)	EACH	4
	713-02.21	SIGN POST DELINEATION ENHANCEMENT	L.F.	960
	713-11.01	"U" SECTION STEEL POSTS	LB.	2249
	713-11.02 713-13.02	PERFORATED/KNOCKOUT SQUARE TUBE POST FLAT SHEET ALUMINUM SIGNS (0.080" THICK)	LB. S.F.	3645 185
	713-13.02	FLAT SHEET ALUMINUM SIGNS (0.100" THICK)	S.F.	1458
(15)	713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	1
	713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EACH	4
	713-16.06	DEAD END SIGN AND SUPPORT	EACH	1
	716-01.07 716-01.22	TEMPORARY RAISED PAVEMENT MARKER YELLOW SNWPLWBLE PVMT MARKERS (MONO DIR)(1 COLOR LENS)	EACH EACH	180 38
	716-01.22	SNWPLWBLE PVMT MARKERS (MONO DIR)(1 COLOR LENS) SNWPLWBLE PVMT MARKERS (BI DIR)(2 COLOR LENS)	EACH	488
(16)	716-02.04	PLASTIC PAVEMENT MARKING (CHANNELIZATION STRIPING)	S.Y.	38
(16)	716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	125
(16)	716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	7
	716-04.14 716-05.01	PLASTIC PAVEMENT MARKING (LANE REDUCTION ARROW) PAINTED PAVEMENT MARKING (4" LINE)	EACH	3
	716-05.01	PAINTED PAVEMENT MARKING (4 LINE) PAINTED PAVEMENT MARKING (8" BARRIER LINE)	L.M.	8400
(17)	716-05.05	PAINTED PAVEMENT MARKING (STOP LINE)	L.F.	126
` '	716-05.20	PAINTED PAVEMENT MARKING (6" LINE)	L.M.	21
(18)	716-08.01	REMOVAL OF PAVEMENT MARKING (LINE)	L.F.	10471
	716-12.02	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE)	L.M.	19
(34)	717-01 721-01.03	MOBILIZATION IRRIGATION SYSTEM	LS LS	1
(6)	740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	13993
(-)	740-10.04	GEOTEXTILE (TYPE IV)(STABILIZATION)	S.Y.	8127
(6)	740-11.03	TEMPORARY SEDIMENT TUBE 18 IN	L.F.	14122
	801-01	SEEDING (WITH MULCH)	UNIT	3653
3)(26) (29)	801-01.07 801-01.16	TEMPORARY SEEDING (WITH MULCH) BONDED FIBER MATRIX HYDROMULCH (W/ PERMANENT SEED)	UNIT	8789 510
(29)	801-01.34	GRASS SEED MIX (RIPZN/FLPL)	UNIT	2
(13)	801-02	SEEDING (WITHOUT MULCH)	UNIT	100
(31)	801-02.01	CROWN VETCH MIXTURE (WITHOUT MULCH)	UNIT	660
(26)	801-02.15	FERTILIZER	TON	88
	801-03 801-07	WATER (SEEDING & SODDING)	M.G.	2697
	801-07	SEED (SUPPLEMENTAL APPLICATION) FERTILIZER (SUPPLEMENTAL APPLICATION)	LB. TON	822 6
	802-01.10	TREES (CANOPY TREE (3" CAL. B&B))	EACH	9
	802-01.11	TREES (MULTI-STEM UNDERSTORY TREE (1-1/2" - 2" CAL. B&B))	EACH	25
	802-01.12	TREES (EVERGREEN TREE - 6'-8' TALL)	EACH	35
(37)	802-03.01	SHRUBS (DECIDUOUS, EVERGREEN, AND LOW-BROAD)	EACH	335
(33) (36)	802-06.03 802-07.01	MULCH (3IN SHREDDED PINE BARK MULCH) FLOWER (PERENNIALS)	C.Y. EACH	171 1210
(50)	802-07.01	ACER SACCHARUM (SUGAR MAPLE 2-5 FT CNTNR GRWN)	EACH	43
	802-11.09	CARYA OVATA (SHAGBARK HICKORY 2-5 FT CNTNR GRWN)	EACH	38
	802-11.18	LIQUIDAMBER STYRACIFLUA (SWEETGUM 2-5 FT CNTNR GRWN)	EACH	43
	802-11.26	PLATANUS OCCIDENTALIS (SYCAMORE 2-5 FT CNTNR GRWN)	EACH	41
	802-11.31 802-12.01	QUERCUS FALCATA (SOUTHERN RED OAK 2-5 FT CNTNR GRWN) ACER NEGUNDO (BOX ELDER SEEDLING B.R.)	EACH EACH	39 67
		L AGEN REGUNDO 100A ELDEN GEEDEING D.N. I		. 0/

	ESTIMATED ROADWAY QUANTITIES				
	ITEM NO. DESCRIPTION		UNIT	QUANTITY	
	802-12.40	SALIX NIGRA (BLACK WILLOW SEEDLING B.R.)	EACH	62	
	803-01	SODDING (NEW SOD)	S.Y.	21235	
(38)	805-01.02	TURF REINFORCEMENT MAT (CLASS II)	S.Y.	32759	
	805-01.03	TURF REINFORCEMENT MAT (CLASS III)	S.Y.	2527	
(13)(6)(27)	805-12.01	EROSION CONTROL BLANKET (TYPE I)	S.Y.	53015	
(13)(6)	805-12.02	EROSION CONTROL BLANKET (TYPE II)	S.Y.	33934	
(19)	806-02.03	PROJECT MOWING	CYCL	6	
(33)	920-10.05	EXTENDED LANDSCAPE MAINTENANCE (5 YEAR)	LS	1	

ī	YPE	YEAR	PROJECT NO.	SHEET NO.
C	NST.	2017	NH-16 (54)	2A1

REV. 06/21/17 REVISED ITEMS NOS. 802-11.04 THROUGH 802-12.40 AND ITEM NO. 805-01.02. REVISED FOOTNOTE #34. ADDED FOOTNOTE #38 AS PER EB UPDATES AND ADDED FOOTNOTE #39.

- (1) INCLUDES ALL CROSS DRAINS AND SIDE DRAIN REMOVALS AND THE FOLLOWING: 8'X6' CULVERT @ 427+40, 8'X6' CULVERT @ 455+99, 19'X10' CULVERT @ 461+50, 9.5'X10' CULVERT @ 526+91, AND 8'X6' CULVERT @ 110+00 SHOFNER RD.
- (2) INCLUDES 6163 S.Y. FOR SR-16 AND 3165 S.Y. FOR SIDE ROADS. REMOVE WHERE PROPOSED SUBGRADE IS BETWEEN 0' AND 2' ABOVE EXISTING PAVEMENT.
- (3) REMOVE STONE ENTRY AT PVT DR. LT STA.497+00.00 AND 498+85.77.
- (4) NOT USED.
- (5) INCLUDES WATER FOR DUST CONTROL.
- (6) SEE SUBSECTION 209-07 OF THE STANDARD SPECIFICATION FOR MAINTENANCE REPLACEMENT. ALL QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER.
- (7) NOT USED.
- (8) NOT USED.
- (9) NOT USED.
- (10) NOT USED.
- (11) QUANTITY INCLUDES 9399 TON OF RIP-RAP FOR EPSC, 151 TON FOR PIPE END TREATMENTS, 70 TON FOR DITCH LININGS. SEE STD. DWG. EC-STR-25.
- (12) TRAFFIC CONTROL "SEE S.P. 712-B" TRAFFIC CONTROL SUPERVISOR TO BE ON STAFF FULL-TIME. INCLUDED WITH COST OF TRAFFIC CONTROL.
- (13) TO BE USED AS DIRECTED BY THE ENGINEER.
- (14) INCLUDES THE INSTALLATION AND MAINTENANCE OF A NEW SIGN PANEL, SHEETING AND SUPPORTS. SEE SPECIAL PROVISION NO. 712F.
- (15) REMOVE EXISTING SIGN AND SUPPORT (NO FOOTINGS ON THESE SIGNS) ON 30+/- EXISTING SIGNS WITHIN THE PROJECT LIMITS AND 5+/- EXISTING SIGNS OUTSIDE THE PROJECT LIMITS AS DIRECTED BY THE ENGINEER. ALSO INCLUDES REMOVAL AND REPLACEMENT OF HISTORICAL MARKER
- (16) THE CONTRACTOR MAY ELECT TO SUBSTITUTE PREFORMED PLASTIC FOR THERMOPLASTIC. PREFORMED PLASTIC SHALL BE PAID FOR AT THE SAME UNIT PRICE AS BID FOR THERMOPLASTIC.
- (17) FOR TRAFFIC CONTROL PAVEMENT MARKING.
- (18) TO BE USED TO REMOVE ALL EXISTING CONFLICTING MARKINGS PRIOR TO SHIFTING TRAFFIC
- (19) ITEM INCLUDES LITTER AND TRASH REMOVAL. THIS WORK WILL NOT BE MEASURED AND PAID FOR DIRECTLY BUT WILL BE INCLUDED IN THE COST OF ITEM 806-02.03.
- (20) BID PRICE INCLUDES ALL SALVAGE VALUE OF MATERIAL . SEE TABULATED QUANTITIES SHEET NO.2U FOR REMOVAL OF BUILDINGS AND OBSTRUCTIONS DESCRIPTION BLOCK.
- (21) FOR ABANDONMENT OF WATER WELL 232.8' RT. 497+00.00, TRACT 64. WORK SHALL BE ACCOMPLISHED BY A LICENSED DRILLER.
- (22) QUANTITY TO BE USED ON LOW SIDE OF SUPERELEVATED SHOULDER BEGIN AT POINT WHERE THE STONE TOUCHES PAVED SHOULDER AND EXTEND OUTWARDLY FROM PAVED SHOULDER TO THE POINT WHERE STONE MEETS THE SUBGRADE TO HELP REDUCE EROSION AS DIRECTED BY THE ENGINEER.
- (23) SEE ENERGY DISSIPATER DETAILS SHEET.
- (24) QUANTITY INCLUDES 126 TON FOR CROSS DRAIN END TREATMENTS, 248 TON FOR BOX CULVERT, AND 2226 TON FOR RIPRAP @ BRIDGES.
- (25) QUANTITY FOR FILLING EXISTING AND TEMPORARY PIPE CULVERT WHEN PROPOSED DRAINAGE IS COMPLETED. INCLUDES 20 C.Y. FOR UNDERDRAINS.
- (26) INCLUDES 3 APPLICATIONS.
- (27) INCLUDES 10611 S.Y. FOR TEMPORARY CROSS OVERS AND 2000 S.Y. AS DIRECTED BY THE ENGINEER.
- (28) CULVERT EXCAVATION FOR CONCRETE BOX OR SLAB TYPE CULVERTS CR BRIDGES WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS.
- (29) TO BE USED ON 1.5:1 SLOPES AS DIRECTED BY THE ENGINEER.
- (30) FOR ROCK PADS AND BUTTRESS.
- (31) TO BE USED ON 3:1 SLOPES AND UP TO 1.5:1 SLOPES.
- (32) FOR MEDIAN PLANTING BED PREPARATION.
- (33) FOR MEDIAN PLANTING AREA.
- (34) ITEM TO INCLUDE LABOR AND MATERIALS REQUIRED TO CONNECT TO THE PROPOSED BEDFORD COUNTY UTILITY DISTRICT WATER LINE AND PROVIDE 18,500 S.F. OF IRRIGATION COVERAGE FOR THE LANDSCAPED MEDIAN.
- (35) INCLUDES 20.25 TONS FOR MEDIAN PLANTING AREA.
- (36) PERENNIALS FOR MEDIAN PLANTING AREA SHALL BE #1 CONTAINERS.
- (37) INCLUDES DECIDUOUS SHRUB (8'-12' TALL), EVERGREEN SHRUB (5'-8' TALL), DECIDUOUS SHRUB (5'-8' TALL), AND LOW-BROAD SHRUB (3' TALL MAX.).
- (38) INCLUDES 525 S.Y. FOR STR-5A.
- (39) ALL GUARDRAIL AND HARDWARE SHALL BE MASH TL 3 COMPLIANT, POWDER COATED BROWN.

FOOTNOTE NUMBERS (4), (7), (8), (9) AND (10) ARE NOT USED.

UNOFFICIAL NOT FOR

BIDDING



STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

> ESTIMATED ROADWAY QUANTITIES

- (39) THE CONTRACTOR SHALL BE REQUIRED TO FURNISH LAYOUT DRAWINGS (3 SETS) OF ALL EXTRUDED PANEL SIGNS WITH SPACING OF ALL LETTERS, NUMERALS, SHIELDS, AND ARROWS. THE LAYOUT DRAWINGS SHALL BE SENT TO THE ROADWAY DESIGN DIVISION, SIGNING AND MARKING SECTION, SUITE 1300, J. K. POLK BUILDING, NASHVILLE, TN 37243-1402.
- ALL SIGNS MARKED "TO BE REMOVED" ARE TO BE REMOVED BY THE CONTRACTOR AND PAID FOR UNDER ITEM 713-15 AND BECOME THE PROPERTY OF THE CONTRACTOR.
- THE EXISTING FOOTINGS ARE TO BE REMOVED 6 INCHES BELOW GROUND
- THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS, EXCEPT THAT CUT-OUT DIRECT APPLIED COPY SHALL BE USED ON ALL FLAT SHEET SIGNS WITH A GREEN BACKGROUND, OR BROWN BACKGROUND
- THE LENGTHS OF ALL SIGN SUPPORTS SHOWN ON THE SIGN SCHEDULE ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY ALL SUPPORT LENGTHS AT THE SITE PRIOR
- THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL NOTES

- ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.
- IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER. COSTS OF REMOVAL, COVERING, AND REINSTALLING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COSTS SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.
- (47) A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS A FLAGGER SIGN, MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.
- TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- USE OF BARRICADES, PORTABLE BARRIER RAILS, VERTICAL PANELS, AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL INCREASE TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THE ENGINEER DETERMINES THEY ARE NO LONGER NEEDED. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FCR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO PARK WITHIN THIRTY (30) FEET OF A OPEN TRAFFIC LANE AT ANY TIME UNLESS PROTECTED AS DÉSCRIEED ABOVE FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE.. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.

- (51) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL
- ALL DETOURS SHALL BE PAVED, STRIPED, SIGNED AND THE VERTICAL PANELS ARE TO BE IN PLACE BEFORE IT IS OPENED TO TRAFFIC.

EROSION PREVENTION AND SEDIMENT CONTROL NOTES NATURAL RESOURCES

- (53) SOIL MATERIALS MUST BE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. EPSC MEASURES TO PROTECT NATURAL RESOURCES AND WATER QUALITY SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. APPROPRIATE EPSC MEASURES MUST BE INSTALLED ALONG THE BASE OF ALL FILLS AND CUTS, ON THE DOWNHILL SIDE OF STOCKPILED SOIL, AND ALONG NATURAL RESOURCES IN CLEARED AREAS TO PREVENT SEDIMENT MIGRATION INTO STREAMS WETLANDS OR OTHER NATURAL FEATURES IN ACCORDANCE WITH TOOT STANDARDS. EPSC MEASURES SHALL BE INSTALLED ON THE CONTOUR, ENTRENCHED AND STAKED, AND EXTEND THE WIDTH OF THE AREA TO BE
- NEW CHANNEL CONSTRUCTION SHALL BE COMPLETED IN THE DRY AND STABILIZED FOR AT LEAST 72 HOURS PRIOR TO DIVERTING WATER FROM THE EXISTING AND/OR TEMPORARY CHANNEL
- INSTREAM EPSC DEVICES REQUIRE THE TDOT ENVIRONMENTAL DIVISION, PERMITS SECTION REVIEW AND MUST BE PROCESSED BY THE PERMITS SECTION TO OBTAIN WATER QUALITY PERMITS.
- (56) THE OPERATION OF EQUIPMENT IN WATERS OF THE STATE/U.S. INCLUDING WETLANDS AND EPHEMERAL, INTERMITTENT, AND PERENNIAL STREAMS, SHALL BE ONLY AS DEPICTED ON THE CONSTRUCTION PLANS AND/OR AS SO SPECIFIED IN THE WATER QUALITY PERMITS. IF APPLICABLE. ANY DISCREPANCIES BETWEEN PLANS AND PERMITS SHALL BE BROUGHT TO THE ATTENTION OF THE TDOT RESPONSIBLE PARTY AS SOON AS POSSIBLE. ADDITIONAL PERMITS REQUIRED BY THE CONTRACTOR'S METHOD OF OPERATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AFTER RECEIVING THE APPROVAL OF THE TOOT ENVIRONMENTAL DIVISION, PERMITS SECTION.
- THE WIDTH OF THE FILL ASSOCIATED WITH TEMPORARY CROSSINGS SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR THE ACTUAL CROSSING, NOT TO EXCEED THE WIDTH SPECIFIED IN THE STANDARD
- STREAM BEDS SHALL NOT BE USED AS TRANSPORTATION ROUTES FOR CONSTRUCTION FOURMENT TEMPORARY CULVERT CROSSINGS SHALL BE LIMITED TO ONE POINT PER STREAM AND EPSC MEASURES SHALL BE USED WHERE THE STREAM BANKS ARE DISTURBED. WHERE THE STREAMBED IS NOT COMPOSED OF BEDROCK, A PAD OF CLEAN ROCK SHALL BE USED AT THE CROSSING POINT AND CULVERTED TO PREVENT THE IMPOUNDMENT OF WATER FLOW. CLEAN ROCK IS ROCK OF VARIOUS TYPE AND SIZE, DEPENDING UPON APPLICATION, WHICH CONTAINS NO FINES, SOILS, OR OTHER WASTES OR CONTAMINANTS. OTHER MATERIALS USED FOR ALL TEMPORARY FILLS SHALL BE COMPLETELY REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED AND THE AFFECTED AREAS RETURNED TO PREEXISTING ELEVATIONS. ALL TEMPORARY CROSSINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. DWG. EC-STR-25 UNLESS SPECIFICALLY ADDRESSED IN THE EPSC PLANS. ALTERNATIVELY, PLACING A TEMPORARY BRIDGE (E.G. BAILEY BRIDGE OR EQUIVALENT, TIMBERS, ETC.) FROM TOP OF BANK TO TOP OF BANK OR THE APPROPRIATE USE OF BARGES AT THE CROSSING TO AVOID DISTURBANCE OF THE STREAMBED IS AN ACCEPTABLE OPTION.
- HEAVY EQUIPMENT WORKING IN WETLANDS WITH PERMITTED TEMPORARY IMPACTS SHALL BE PLACED ON MATS. OR OTHER MEASURES MUST BE TAKEN TO MINIMIZE SOIL DISTURBANCE AND COMPACTION UNLESS SPECIFICALLY ADDRESSED IN THE CONSTRUCTION PLANS, ANY MATS AND OTHER MEASURES USED FOR HEAVY EQUIPMENT SHALL BE REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED. ALL AFFECTED AREAS SHOULD BE RETURNED TO PRE-EXISTING CONDITIONS
- WETLANDS SHALL NCT BE USED AS EQUIPMENT STORAGE, STAGING, OR TRANSPORTATION AREAS, UNLESS SPECIFICALLY PROVIDED FOR IN THE CONSTRUCTION PLANS AND PERMITS.
- THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS BEFORE ALL CONSTRUCTION AND MAINTENANCE ACTIVITIES TO ENSURE THAT ENVIRONMENTAL FEATURES (E.G. STREAMS, WETLANDS, SPRINGS, ETC.) ARE NOT IMPACTED BEYOND THE PERMITTED LOCATIONS. IF THE CONTRACTOR OR TDOT INSPECTOR IS UNSURE OF THE IDENTITY OF AN ENVIRONMENTAL FEATURE, THE INSPECTOR SHALL CONTACT THE TOOT REGION ENVIRONMENTAL TECH GROUP IMMEDIATELY.

SPECIES

- NO ACTIVITY MAY SUBSTANTIALLY DISRUPT THE MOVEMENT OF THOSE SPECIES OF AQUATIC LIFE INDIGENOUS TO THE WATER BODY, INCLUDING THOSE SPECIES THAT NORMALLY MIGRATE THROUGH THE AREA.
- SHOULD CLIFF SWALLOW OR BARN SWALLOW NESTS, EGGS, OR BIRDS (YOUNG AND ADULTS) BE PRESENT, THE CONTRACTOR SHALL CONTACT THE REGIONAL ECOLOGY OFFICE TO DETERMINE IF SEASONAL RESTRICTIONS WILL BE NECESSARY, GENERALLY, BIRDS, NESTS, AND EGGS MAY NOT BE DISTURBED BETWEEN APRIL 15 AND JULY 31. FROM AUGUST 1 TO APRIL 14, NESTS CAN BE REMOVED OR DESTROYED SO LONG AS BIRDS OR EGGS ARE NOT PRESENT, AND MEASURES IMPLEMENTED TO PREVENT FUTURE NEST BUILDING AT THE SITE (I.E., CLOSING OFF AREA USING NETTING)
- IF THE REMOVAL OF ANY TREES WITH A DIAMETER AT BREAST HEIGHT (DBH) GREATER THAN 3 INCHES IS DEEMED NECESSARY THE TDOT SUPÉRVISOR SHALL CONTACT THE TDOT ENVIRONMENTAL DIVISION, ECOLOGY SECTION IMMEDIATELY.

INSPECTION, MAINTENANCE & REPAIR

REFER TO THE STORM WATER POLLUTION AND PREVENTION PLAN SHEETS (S-1) FOR SWPPP, PERMITS, AND RECORDS NOTES.

PERMITS. PLANS & RECORDS

- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND OBTAIN ANY NECESSARY ENVIRONMENTAL PERMITS OR APPROVALS, INCLUDING BUT NOT LIMITED TO ARCHAEOLOGY, ECOLOGY, HISTORICAL, HAZARDOUS MATERIALS, AIR AND NOISE, TDEC ARAP/401, USACE SECTION 404, TVA SECTION 26A, AND TDEC NPDES PERMITS, FROM FEDERAL, STATE AND/OR LOCAL AGENCIES REGARDING ANY MATERIAL AND STAGING AREAS AND THE OPERATION OF ANY PROJECT-DEDICATED ASPHALT AND/OR CONCRETE PLANTS TO BE USED. ANY SUCH PERMITS SHALL BE SUPPLIED TO THE TDOT PROJECT RESPONSIBLE PARTY PRIOR TO THE USE OF THE PERMITTED AREA(S).
- ANY DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE TDOT PROJECT RESPONSIBLE PARTY. THE ENVIRONMENTAL DIVISION, DESIGN DIVISION, AND HEADQUARTERS CONSTRUCTION OFFICE SHALL BE CONTACTED IN THESE INSTANCES AND DECIDE WHICH HAS PRECEDENCE AND WHETHER PERMIT OR PLANS REVISIONS ARE NEEDED. IN GENERAL, PERMIT CONDITIONS WILL PREVAIL.
- IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION INCLUDING VALUE ENGINEERING, THE TOOT PERMIT SECTION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS ARE NEEDED. THE ROADWAY DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.
- THE CONTRACTOR SHALL REVIEW ALL EXISTING PERMITS TO ENSURE THAT WORK AT PERMITTED SITES DOES NOT EXCEED EXPIRATION DATE. IF WORK IS GOING TO BE CONTINUED AFTER EXPIRATION DATES. THE CONTRACTOR SHALL CONTACT THE TDOT PROJECT RESPONSIBLE PARTY TO COMMENCE PERMIT RENEWAL PROCESS
- ALL WATER QUALITY PERMITS SHALL BE POSTED NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE ACCESSIBLE TO THE PUBLIC. THE NAME, COMPANY NAME, EMAIL ADDRESS, TELEPHONE NUMBER AND ADDRESS OF THE PROJECT SITE OWNER, OPERATOR, OR A LOCAL CONTACT PERSON WITH A BRIEF DESCRIPTION OF THE PROJECT SHALL ALSO BE POSTED. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE, THE INFORMATION SHALL BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION NEAR WHERE THE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY. THIS LOCATION SHALL BE POSTED AT THE CONSTRUCTION SITE. ALL POSTINGS SHALL BE MAINTAINED IN LEGIBLE CONDITION.

GOOD HOUSEKEEPING MEASURES & WASTE DISPOSAL

THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS SHALL BE REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFFSITE BY WIND, OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES. AFTER USE, MATERIALS USED FOR EPSC SHALL BE REMOVED FROM THE SITE.

TYPE PROJECT NO. CONST. NH-16 (54)

> UNOFFICIAL NOT FOR **BIDDING**



STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATIO

(72)	THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO ENSURE THAT
	PETROLEUM PRODUCTS OR OTHER CHEMICAL POLLUTANTS ARE
	PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. ALL
	EQUIPMENT REFUELING, SERVICING, AND STAGING AREAS SHALL COMPLY
	WITH ALL LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS, AND
	ORDINANCES, INCLUDING THOSE OF THE NATIONAL FIRE PROTECTION
	ASSOCIATION. APPROPRIATE CONTAINMENT MEASURES FOR THESE
	AREAS SHALL BE USED.

- (73) CONTRACTORS SHALL PROVIDE DESIGNATED TRUCK WASHOUT AREAS ON THE SITE. THESE AREAS MUST BE SELF CONTAINED, NOT CONNECTED TO ANY STORMWATER OUTLET OF THE SITE AND PROPERLY SIGNED. WASH DOWN OR WASTE DISCHARGE OF CONCRETE TRUCKS SHALL NOT BE PERMITTED ONSITE UNLESS PROPER SETTLEMENT AREAS HAVE BEEN PROVIDED IN ACCORDANCE WITH BOTH STATE AND FEDERAL REGULATIONS
- (74) WHEEL WASH WATER SHALL BE COLLECTED AND ALLOWED TO SETTLE OUT SUSPENDED SOLIDS PRIOR TO DISCHARGE. WHEEL WASH WATER SHALL NOT BE DISCHARGED DIRECTLY INTO ANY STORMWATER SYSTEM OR STORMWATER TREATMENT SYSTEM.
- (75) IF PORTABLE SANITARY FACILITIES ARE PROVIDED ON CONSTRUCTION SITES, SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS IN A TIMELY MANNER BY A LICENSED WASTE MANAGEMENT CONTRACTOR OR AS REQUIRED BY ANY REGULATIONS. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF SANITARY WASTE.
- (76) ONLY CONSTRUCTION PRODUCTS NEEDED SHALL BE STORED ONSITE BY THE CONTRACTOR. THE CONTRACTOR SHALL STORE ALL MATERIALS UNDER COVER AND IN APPROPRIATE CONTAINERS. PRODUCTS MUST BE STORED IN ORIGINAL CONTAINERS AND LABELED. MATERIAL MIXING SHALL BE CONDUCTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR'S RESPONSIBLE PARTY SHALL INSPECT MATERIALS STORAGE AREAS REGULARLY TO ENSURE PROPER USE AND DISPOSAL.
- (77) WHEN POSSIBLE, ALL PRODUCTS SHALL BE USED COMPLETELY BEFORE PROPERLY DISPOSING OF THE CONTAINER OFFSITE. THE MANUFACTURER'S DIRECTIONS FOR DISPOSAL OF MATERIALS AND CONTAINERS SHALL BE FOLLOWED.
- (78) ALL PAINT CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT SHALL BE DISPOSED OF ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND APPLICABLE STATE AND LOCAL REGULATIONS.
- (79) ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN A MANNER WHICH IS COMPLIANT WITH LOCAL OR STATE REGULATIONS. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES, AND THE INDIVIDUAL DESIGNATED AS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF HAZARDOUS MATERIAL.
- (80) OPEN BURNING IS PROHIBITED UNLESS IT IS SPECIFICALLY ALLOWED BY LAW. IF ALLOWED, NATURAL VEGETATION, TREES, AND UNTREATED LUMBER SHALL BE THE ONLY MATERIALS THAT CAN BE OPEN BURNED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE STATE AND LOCAL PERMITS PRIOR TO ANY BURNING.
- (81) DISPOSAL OF ONSITE VEGETATION AND TREES BY CHIPPING THEM INTO MULCH IS PREFERABLE TC OPEN BURNING. THIS MULCH MAY BE USED AS AN ONSITE SOIL STABILIZATION MEASURE WHERE APPROPRIATE.
- 82) WASTE MATERIAL (EARTH, ROCK, ASPHALT, CONCRETE, ETC.) NOT REQUIRED FOR THE CONSTRUCTION OF THE PROJECT WILL BE DISPOSED OF BY THE CONTRACTOR. IMPACTS TO WATERS OF THE STATE/U.S. SHALL BE AVOIDED IF POSSIBLE. IF UNAVOIDABLE, THE CONTRACTOR WILL OBTAIN ANY AND ALL NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO NPDES, AQUATIC RESOURCES ALTERATION PERMIT(S), CORPS OF ENGINEERS SECTION 404 PERMITS, AND TVA SECTION 26A PERMITS TO DISPOSE OF WASTE MATERIALS.

SUPPORT ACTIVITIES

(83) MATERIALS AND STAGING AREAS SHALL NOT AFFECT ANY WATERS OF THE STATE/U.S. UNLESS THESE AREAS ARE SPECIFICALLY COVERED BY ENVIRONMENTAL PERMITS, OBTAINED SOLELY BY THE CONTRACTOR THE CONTRACTOR SHALL REVIEW ALL EXISTING PERMITS TO ENSURE THAT WORK AT PERMITTED SITES DOES NOT EXCEED EXPIRATION DATES. IF WORK IS GOING TO BE CONTINUED AFTER EXPIRATION DATES, THE CONTRACTOR SHALL CONTACT THE TDOT PROJECT RESPONSIBLE PARTY TO COMMENCE PERMIT RENEWAL PROCESS.

SPECIAL NOTES

GRADING

- 84) THE GRADING TABULATIONS AND RESULTING EARTHWORK ASSOCIATED BID QUANTITIES WERE PREPARED UTILIZING AVAILABLE GEOTECHNICAL INFORMATION AND/OR REPORTS PREPARED FOR THIS PROJECT. THIS INFORMATION IS PROVIDED FOR GENERAL INFORMATION AND ESTIMATION GUIDANCE ONLY.
- (85) BORING DEPICTIONS SHOWN ON THE FOUNDATION DATA SHEETS, SOILS SHEETS, PLANS, AND CROSS-SECTIONS INDICATE SOIL AND ROCK CONDITIONS AT THE SPECIFIC BORING LOCATIONS. ANY SOIL PROFILE AND/OR ROCK LINE IS INTERPRETIVE BASED ON THE JUDGMENT OF THE GEOTECHNICAL ENGINEER/GEOLOGIST. THE TRANSITION BETWEEN BORINGS AND LAYERS MAY VARY SIGNIFICANTLY DEPENDING ON THE GEOLOGIC FORMATIONS ENCOUNTERED.
- (86) TO ASSIST IN BID PREPARATION FOR EARTHWORK AND FOUNDATION CONSTRUCTION, DETAIL ROCK AND SOIL DESCRIPTION AND ON SOME PROJECTS, ROCK CORE SAMPLES ARE AVAILABLE FOR INSPECTION AT THE MATERIALS AND TESTS HEADQUARTERS AT 6601 CENTENNIAL BOULEVARD, NASHVILLE, TN OR AT THE TDOT REGION 1 BUILDING IN KNOXVII I F TN
- (87) THE CONTRACTOR SHALL UTILIZE ALL INFORMATION PROVIDED IN THE PLANS, CROSS-SECTIONS AND CONTRACT DOCUMENTS INCLUDING ANY SPECIAL PROVISIONS AS WELL AS UTILIZING HIS PAST EXPERIENCE WITH PROJECTS OF SIMILAR NATURE, SCOPE AND LOCATION IN PREPARATION OF HIS BID FOR EARTHWORK ITEMS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND PROVIDE EQUIPMENT AND MEANS NECESSARY TO CONDUCT THE EXCAVATION ACTIVITIES IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.
- (88) EARTHWORK IS PAID FOR UNDER ITEM 203-01, ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED). NO ADDITIONAL PAYMENT WILL BE MADE FOR EARTHWORK QUANTITIES BASED SOLELY ON A CLAIM THAT THE QUANTITIES SHOWN IN THE GRADING TABULATION OR ELSEWHERE IN THE PLANS ARE INACCURATE WITH RESPECT TO THE TYPE OF MATERIALS ENCCUNTERED DURING CONSTRUCTION EXCEPT AS PROVIDED FOR BY SECTION 104.02 IN THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OR AS AMENDED IN SUPPLEMENTAL SPECIFICATIONS.

DEMOLITION

DEMOLITION OF BUILDINGS

- (89) IF THE ASBESTOS SURVEY AND ABATEMENT IS NOT PART OF THE CONTRACT, THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE TDOT HAZARDOUS MATERIALS OFFICE TO VERIFY THAT AN ASBESTOS SURVEY HAS BEEN COMPLETED FOR ANY BUILDING TO BE REMOVED. IN THE CASE THAT NO SURVEY HAS BEEN COMPLETED THE CONTRACTOR SHALL COORDINATE WITH THE HAZARDOUSE MATERIAL OFFICE IN SCHEDULING A SURVEY.
- (90) ASBESTOS-CONTAINING MATERIALS (ACM) ABATEMENT SHALL BE COMPLETED PRIOR TO ANY DEMOLITION ACTIVITIES FOR BUILDINGS INCLUDED IN THE PROJECT. ABATEMENT SHOULD BE ACCOMPLISHED PER SP202ACM SPECIAL PROVISION REGARDING REMOVAL OF ASBESTOS-CONTAINING MATERIALS. STATE OF TENNESSEE ASBESTOS ACCREDITATION REQUIREMENTS (TCA 1200-01-20) MANDATE THAT ACM ABATEMENT WORK BE PERFORMED BY AN ACCREDITED FIRM (CONTRACTOR) USING ACCREDITED ABATEMENT WORKERS AND SUPERVISORS.
- 91) THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A NOTICE TO THE TDEC, DIVISION OF AIR POLLUTION CONTROL TEN (10) DAYS IN ADVANCE OF ANY ACM ABATEMENT, DEMOLITION, OR MAJOR REPAIR INVOLVING THE REMOVAL/REPLACEMENT OF A STRUCTURAL COMPONENT.

DEMOLITION, REPAIR, OR REHABILITATION OF BRIDGES

(92) IF THE CONTRACTOR SHALL VERIFY THAT AN ASBESTOS SURVEY HAS BEEN COMPLETED PRIOR TO ANY DEMOLITION, REPAIR OR REHABILITATIONS ACTIVITIES (NOT INCLUDING ASPHALT MILLING OR OVERLAY).

- 93) ASBESTOS-CONTAINING MATERIALS (ACM) ABATEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE COMPLETED PRIOR TO ANY DEMOLITION, REPAIR OR REHABILITATION OF BRIDGE(S). ABATEMENT SHOULD BE ACCOMPLISHED PER SP202ACM SPECIAL PROVISION REGARDING REMOVAL OF ASBESTOS-CONTAINING MATERIALS. STATE OF TENNESSEE ASBESTOS ACCREDITATION REQUIREMENTS (TCA 1200-01-20) MANDATE THAT ACM ABATEMENT WORK BE PERFORMED BY AN ACCREDITED FIRM (CONTRACTOR) USING ACCREDITED ABATEMENT WORKERS AND SUPERVISORS.
- (94) THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A NOTICE TO THE TDEC, DIVISION OF AIR POLLUTION CONTROL TEN (10) DAYS IN ADVANCE OF ANY ACM ABATEMENT, DEMOLITION, OR MAJOR REPAIR INVOLVING THE REMOVAL/REPLACEMENT OF A STRUCTURAL COMPONENT.

EROSION PREVENTION AND SEDIMENT CONTROL

ENVIRONMENTAL

(95) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION COMPLIANCE AND FIELD SERVICES OFFICE SHALL BE INVITED TO ALL PRE-CONSTRUCTION MEFTINGS.

ECOLOGY

- 36) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION OR A DESIGNEE SHALL ADVISE THE CONTRACTOR DURING THE PRE-CONSTRUCTION MEETING WHEN ENVIRONMENTAL DIVISION PERSONNEL OR A DESIGNATED CONSULTANT WILL NEED TO BE ONSITE FOR WORK BEING DONE WHICH COULD AFFECT WATERS OF THE STATE/U.S. OR SPECIES.
- 97) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION OR A DESIGNEE SHALL ATTEND THE PRE-CONSTRUCTION MEETING FOR ALL PROJECTS WHICH HAVE THREATENED OR ENDANGERED SPECIES OR CRITICAL HABITAT PROXIMAL TO SCHEDULED WORK. THIS WILL PROVIDE THE OPPORTUNITY TO ENSURE THAT PERSONNEL INCLUDING THE CONTRACTOR'S PERSONNEL AND SUBCONTRACTORS ARE MADE AWARE OF THE NECESSARY PRECAUTIONS THAT MUST BE FOLLOWED.
- (98) ALL PROJECTS WITH LEGALLY PROTECTED SPECIES OR CRITICAL HABITAT IDENTIFIED SHALL FAVE MEASURES IN PLACE TO CONTAIN CONCRETE DUST, CEMENT DUST AND ALL OTHER MATERIALS. THESE MATERIALS ARE NOT ALLOWED TO ENTER WATERS OF THE STATE/U.S.

PROJECT COMMITMENTS

(99) SEE PROJECT COMMITMENTS, SHEET 1D, FOR DETAILS RELATING TO SPECIAL ENVIRONMENTAL COMMINTMENTS REQUIRED BY THIS PROJECT.

SPECIAL PROJECT NOTES

- (100) THE CONTRACTOR SHALL COMPLETE THE WORK WITHIN THE DESIGNATED WORK ZONE (WHERE PRACTICAL) AS INDICATED ON THE PHASING PLAN AND PRIOR TO THE STARTING OF ANOTHER PHASE. THE CONTRACTOR SHALL HAVE ACCESS TO ALL WORK ZONES WITHIN THE PROJECT AREA AT ANY GIVEN TIME FOR THE PURPOSE OF STORING EQUIPMENT, STORING MATERIALS, STOCKPILING EARTHWORK, EXCAVATING AND/OR PLACEMENT OF MATERIAL AS NECESSARY FOR A SINGLE PHASE COMPLETION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ANY CHANGES NEEDED IN EPSC AND TEMPORARY SIGNING WITHIN ANY SUB-PHASE OF THE PROJECT AND TO INCLUDE ADDITIONAL WORK ZONE(S) OR CONSTRUCTION STAGING AREAS NOT SHOWN ON THE PHASING PLANS.
- (101) CONSTRUCTION PHASING MUST BE PHASED WITHIN WORK ZONES TO KEEP THE TOTAL DISTURBED AREA LESS THAN 50 ACRES AT ANY ONE TIME. AREAS OF THE COMPLETED PHASE MUST BE STABILIZED WITHIN 14 DAYS. THIS INCLUDES OFF-SITE BORROW OR DISPOSAL AREAS.
- (102) THE PROPOSED SEDIMENT BASIN LOCATED AT APPROXIMATE STA. 430+00 RT. SHALL BE CONSTRUCTED DURING PHASE 1 CONSTRUCTION. THE BASIN SHALL BE LEFT IN-PLACE FOR A MINIMUM OF SIX MONTHS SO THAT RESEARCH CAN BE CONDUCTED BY THE UNIVERSITY OF TENNESSEE REGARDING EPSC. THE ROADWAY CONSTRUCTION WITHIN THE BASIN AREA SHALL BE COMPLETED JUST PRIOR TO THE SHIFTING OF TRAFFIC FOR PHASE 2 CONSTRUCTION. SEE EPSC PLANS FOR BASIN DETAILS AND ADDITIONAL NOTES

TYPE YEAR PROJECT NO. SHEET NO.

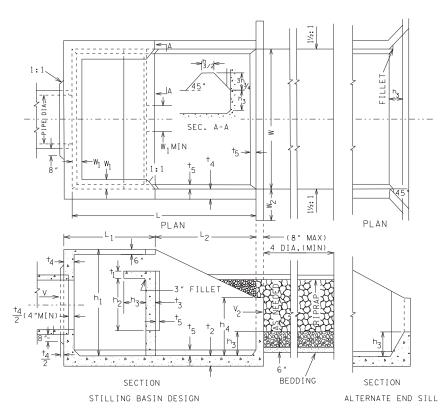
CONST. 2017 NH-16 (54) 20

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL AND SPECIAL NOTES



BAFFLE--WALL ENERGY DISSIPATOR -- USBR TYPE VI

INTERNAL ENE	RGY DISSIPATOR			
8'X8' BC	X CULVERT			
STA. 526+83.08				
TYPE	INCREASED RESISTANCE ELEMENTS			
DISTANCE TO FIRST ELEMENT	2.500 ft.			
DISTANCE BETWEEN ELEMENTS	5.000 ft.			
NUMBER OF ROWS	9			
"H "	0.500 ft.			
"W"	0.333 ft.			
GAP	0.250 ft.			

INTERNAL ENERGY DISSIPATOR 8'x6' Box culvert STA. 456+00.37			
TYPE	INCREASED RESISTANCE ELEMENTS		
DISTANCE TO FIRST ELEMENT	1.670 ft.		
DISTANCE BETWEEN ELEMENTS	3.330 ft.		
NUMBER OF ROWS	1 4		
"H"	0.333 ft.		
"W"	0.333 ft.		
GAP	0.250 ft.		

INTERNAL ENERGY DISSIPATOR			
8'X6' BOX CULVERT			
STA. 427+49.73			
TYPE	INCREASED RESISTANCE ELEMENTS		
DISTANCE TO FIRST ELEMENT	2.000 ft.		
DISTANCE BETWEEN ELEMENTS	4.250 ft.		
NUMBER OF ROWS	18		
"H"	0.414 ft.		
"W "	0.333 ft.		
GAP	0.250 ft.		

SEE TDOT STANDARD DRAWING STD-17-34 FOR INTERNAL ENERGY DISSIPATOR DETAILS

60" RCP EN	IERGY DISSIPAT	OR OUTLET
STA. 492-	+16.30 ITEM NO. 60	04-02.48
W = 12.000 ft	W1 = 0.917 ft	W2 = 3.000 ft
L = 16.000 ft	L1 = 6.833 ft	L2 = 9.167 ft
H1 = 9.167 ft	H2 = 4.500 ft	H3 = 2.000 ft
H4 = 5.000 ft	T1 = 0.667 ft	T2 = 0.833 ft
T3 = 0.833 ft	T4 = 0.750 ft	T5 = 0.333 ft

TOR OUTLET
04-02.43
W2 = 1.667 f+
L2 = 4.583 ft
H3 = 1.000 ft
T2 = 0.500 f+
T5 = 0.250 ft

	NERGY DISSIPAT +24.91 ITEM NO. 60	
W = 6.000 ft	W1 = 0.500 ft	W2 = 1.667 ft
L = 8.000 f+	L1 = 3.417 ft	L2 = 4.583 ft
H1 = 4.583 ft	H2 = 2.250 ft	H3 = 1.000 ft
H4 = 2.500 ft	T1 = 0.500 ft	T2 = 0.500 ft
T3 = 0.500 ft	T4 = 0.500 ft	T5 = 0.250 ft

36" RCP EN	NERGY DISSIPA	ATOR OUTLET
STA. 519-	+80.00 ITEM NO. 6	604-02.44
W = 8.000 ft	W1 = 0.583 ft	W2 = 2.167 ft
L = 10.667 f+	L1 = 4.583 ft	L2 = 6.167 ft
H1 = 6.167 ft	H2 = 3.000 ft	H3 = 1.333 ft
H4 = 3.333 ft	T1 = 0.500 ft	T2 = 0.583 f+
T3 = 0.583 ft	T4 = 0.500 ft	T5 = 0.250 ft
		•

48" RCP EN	ERGY DISSIPAT	OR OUTLET
STA. 532+	44.49 ITEM NO. 60	4-02.46
W = 10.000 ft	W1 = 0.750 ft	W2 = 2.750 ft
L = 13.417 ft	L1 = 5.750 ft	L2 = 7.667 ft
H1 = 7.667 ft	H2 = 3.750 ft	H3 = 1.667 ft
H4 = 4.167 ft	T1 = 0.667 ft	T2 = 0.667 ft
T3 = 0.750 ft	T4 = 0.667 ft	T5 = 0.250 ft

18" RCP EN	IERGY DISSIPAT	OR OUTLET
STA. 580-	+32.28 ITEM NO. 60	4-02.41
W = 5.000 ft	W1 = 0.417 ft	W2 = 1.417 f+
L = 6.667 ft	L1 = 2.917 ft	L2 = 3.833 ft
H1 = 3.833 ft	H2 = 1.917 ft	H3 = 0.833 ft
H4 = 2.083 ft	T1 = 0.500 ft	T2 = 0.500 ft
T3 = 0.500 ft	T4 = 0.500 ft	T5 = 0.250 ft

36" RCP EN	IERGY DISSIPAT	OR OUTLET
STA. 584-	+18.55 ITEM NO. 60	4-02.44
W = 7.000 ft	W1 = 0.500 ft	W2 = 1.917 f+
L = 9.417 ft	L1 = 4.000 ft	L2 = 5.417 ft
H1 = 5.417 ft	H2 = 2.583 ft	H3 = 1.667 ft
H4 = 2.917 ft	T1 = 0.500 ft	T2 = 0.500 ft
T3 = 0.500 ft	T4 = 0.500 ft	T5 = 0.250 ft

42" RCP EN	IERGY DISSIPAT	OR OUTLET
STA. 590-	+40.19 ITEM NO. 60	4-02.45
W = 10.000 ft	W1 = 0.750 ft	W2 = 2.750 ft
L = 13.417 ft	L1 = 5.750 ft	L2 = 7.667 ft
H1 = 7.667 ft	H2 = 3.750 ft	H3 = 1.667 ft
H4 = 4.167 ft	T1 = 0.667 ft	T2 = 0.667 ft
T3 = 0.750 ft	T4 = 0.667 ft	T5 = 0.250 ft

	IERGY DISSIPAT +43.52 ITEM NO. 60	
W = 5.000 ft	W1 = 0.417 ft	W2 = 1.417 ft
L = 6.667 ft	L1 = 2.917 ft	L2 = 3.833 ft
H1 = 3.833 ft	H2 = 1.917 ft	H3 = 0.833 ft
H4 = 2.083 ft	T1 = 0.500 ft	T2 = 0.500 ft
T3 = 0.500 ft	T4 = 0.500 ft	T5 = 0.250 ft

36" RCP ENERGY DISSIPATOR OUTLET STA. 133+15.94 WHITE SIDE HILL ITEM NO. 604-02.44						
W = 7.000 ft	W1 = 0.500 ft	W2 = 1.917 ft				
L = 9.417 ft	L1 = 4.000 ft	L2 = 5.417 ft				
H1 = 5.417 ft	H2 = 2,583 ft	H3 = 1.167 ft				
H4 = 2.917 ft	T1 = 0.500 ft	T2 = 0.500 ft				
T3 = 0.500 f+	T4 = 0.500 ft	T5 = 0.250 ft				

30" RCP ENERGY DISSIPATOR OUTLET STA. 97+22.32 NORMANDY ROAD ITEM NO. 604-02.43						
W = 7.000 ft	W1 = 0.500 ft	W2 = 1.917 ft				
11 - 1.000 11	W1 - 0.300 TT	112 - 1.311 11				
L = 9.417 ft	L1 = 4.000	L2 = 5417 ft				
H1 = 5.417 ft	H2 = 2.583 ft	H3 = 1.167 ft				
H4 = 2.917 ft	T1 = 0.500 ft	T2 = 0.500 ft				
T3 = 0.500 ft	T4 = 0.500 ft	T5 = 0.250 ft				

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PROJECT NO.

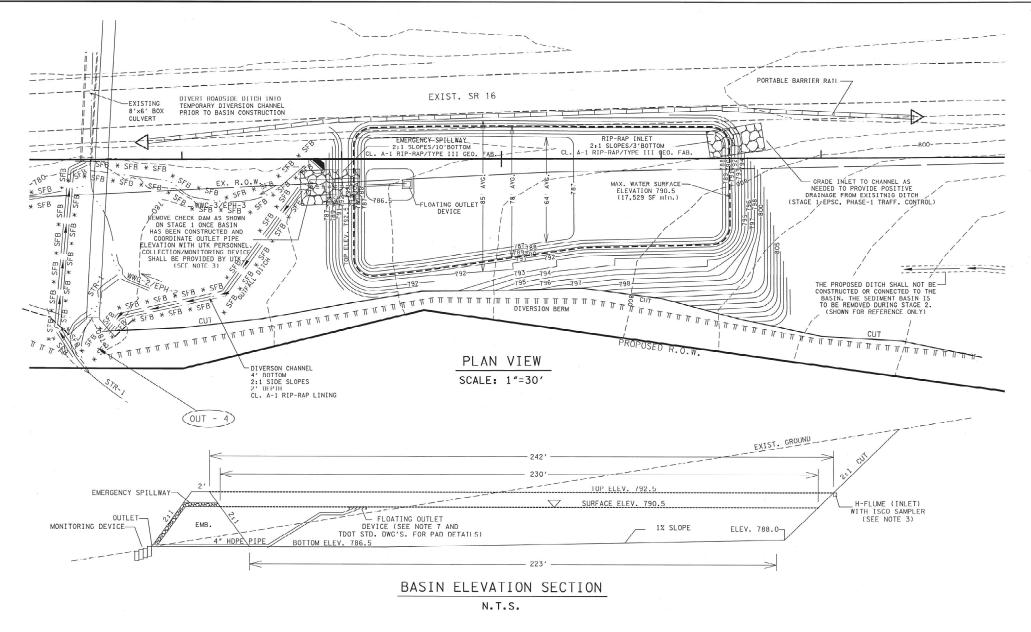
NH-16 (54)

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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION







SEDIMENT BASIN (429+50 TO 432+00)

NOTES:

- 1) SIZE AND VOLUME OF SEDIMENT BASIN PROVIDED BY UTK AND MODIFIED TO FIT EXISTING CONDITIONS.
- (2) SEDIMENT BASIN SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBERS:

PER S.Y.

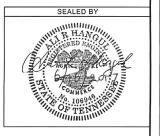
801-01.07

203-01 ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)
PER C.Y.
209-05 SEDIMENT REMOVAL PER C.Y.
209-10.02 8" SKIMMER WITH 6" HEAD PER EACH
709-05.06 MACHINED RIP-RAP (CLASS A-1) PER TON
740-10.03 GEOTEXTILE (TYPE III)(EROSION CONTROL)

TEMPORARY SEEDING (WITH MULCH) PER UNIT

3 COLLECTION/MONITORING DEVICE SYSTEM AND INLET H-FLUME TO BE PROVIDED BY UTK AND INSTALLED BY CONTRACTOR. COST OF INSTALLATION TO BE INCLUDED IN COST OF OTHER ITEMS.

- SEE TDOT STANDARD DRAWINGS EC-STR-15 THROUGH EC-STR-18 FOR ADDITIONAL DETAILS.
- THE EXPOSED SLOPES OF THE SEDIMENT BASIN SHOULD BE STABILIZED WITH TEMPORARY SEEDING WITH MULCH OR OTHER STABILIZATION METHODS.
- PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION, MAINTENANCE AND REMOVAL OF THE SEDIMENT BASIN.
- PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION, MAINTENANCE AND REMOVAL OF FLOATING OUTLET STRUCTURE AND PRINCIPAL SPILLWAY OUTLET PIPE, INCLUDING REPLACEMENT OF THE STONE PAD AS NECESSARY.
- 8 SEDIMENT BASIN DESIGN CALCULATIONS ARE AVAILIBLE UPON REQUEST FROM THE UNIVERSITY OF TENNESSEE AT KNOXVILLE THROUGH THE TDOT PROJECT MANAGER.



PROJECT NO.

NH-16 (54)

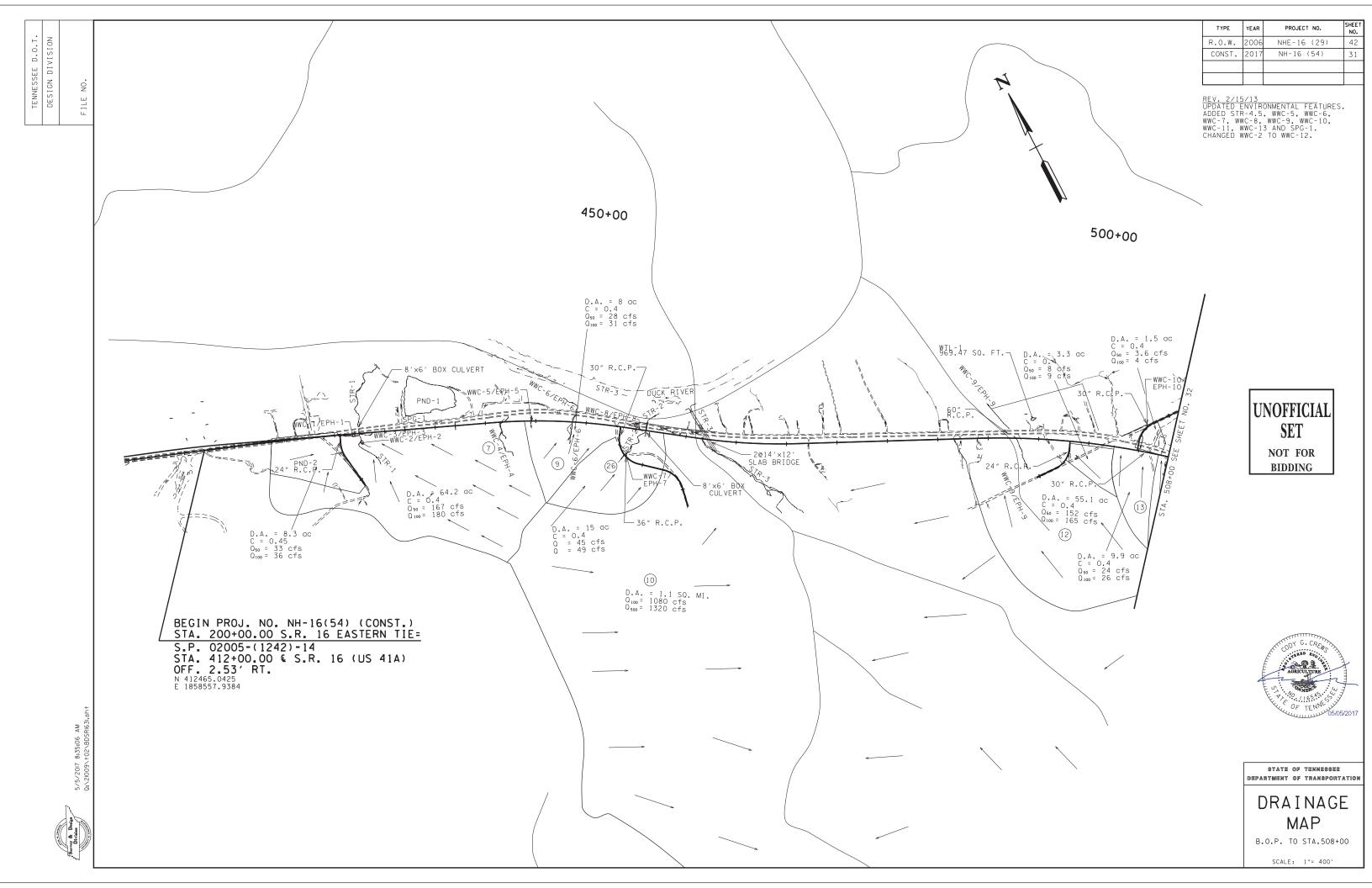
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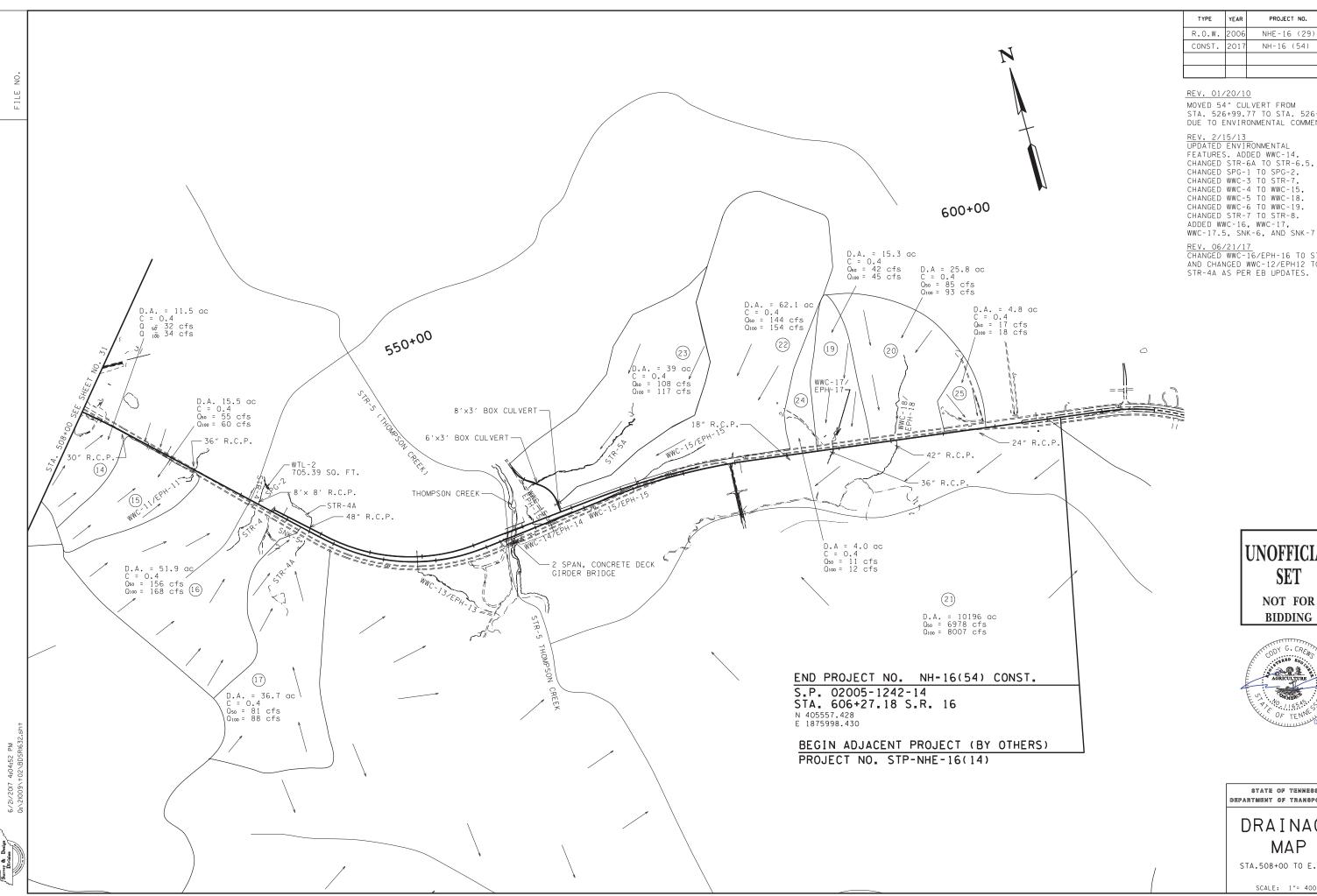
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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

> SEDIMENT BASIN RESEARCH DETAIL





PROJECT NO. R.O.W. 2006 NHE-16 (29) CONST. 2017 NH-16 (54)

MOVED 54" CULVERT FROM STA. 526+99.77 TO STA. 526+83.07 DUE TO ENVIRONMENTAL COMMENTS.

REV. 2/15/13

UPDATED ENVIRONMENTAL
FEATURES. ADDED WWC-14,
CHANGED STR-6A TO STR-6.5,
CHANGED SWC-3 TO STR-7,
CHANGED WWC-3 TO WWC-15,
CHANGED WWC-5 TO WWC-18.
CHANGED WWC-6 TO WWC-19.
CHANGED STR-7 TO STR-8.
ADDED WWC-16. WWC-17.

REV. 06/21/17 CHANGED WWC-16/EPH-16 TO STR-5A AND CHANGED WWC-12/EPH12 TO

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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

STA.508+00 TO E.O.P.

SCALE: 1"= 400'

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805 d	-1.08%	-3.98%	RELOCATED STR-2			805
800	5.28	00 00	-4.09 ₇		408.03 88.35 88.03	800
795	VPI 0+00.	VPI 1+18 EL. 804.			VPI 5 EL. 7 EV 5+2 EL. 78E	795
790		- AP		50.00	3.95%	790
785				VPI 3+5	1.00%	785
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PROPOSED RELOCATED STR-2

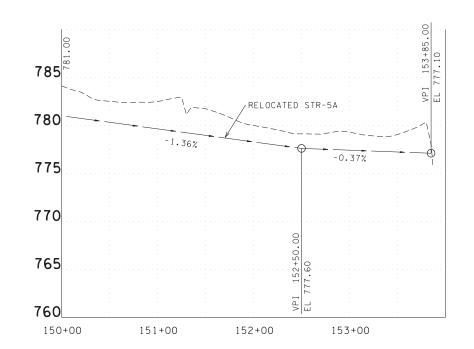
3+00

4+00

5+00

2+00

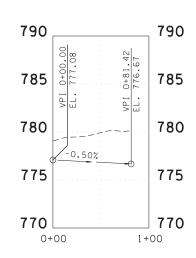
STA. 133+08 LT. WHITESIDE RD. STA. 455+98.93 RT. S.R.16



0+00

1+00

PROPOSED RELOCATED STR-5A STA. 554+70.32 TO 558+57.94 LT.



PROPOSED SPECIAL "V" DITCH STA. 555+41.11 TO 555+51.89 RT.

PROJECT NO. R.O.W. NHE-16 (29) CONST. 2017 NH-16 (54)

REV. 1/18/08 REVISED DITCH STA. 367+19.39 TO STA. 370+91.78.

REV. 9/06/11 ADDED DITCH STA. 555+41.11 TO STA. 555+51.89.

REV. 2/15/13 CHANGED SP. DITCH STA. 454+53.09 TO 455+98.60 RT FROM 3' "T" TO 4' "T" ADDED STR-2 AND STR-4.5 LABEL.

REV. 06/21/17 REVISED SPECIAL 3' "T" DITCH TO BE STR-5A.

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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

> SPECIAL DITCH **PROFILES**

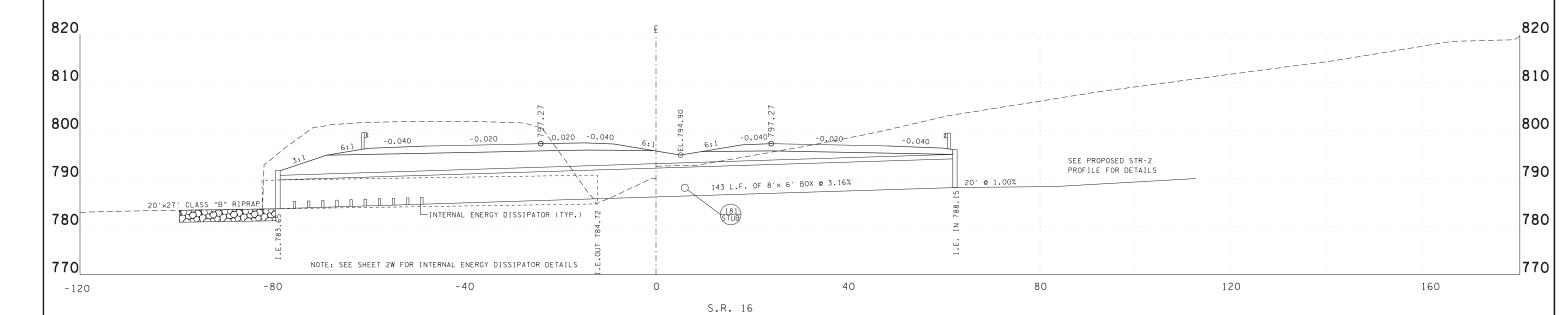
SCALE: 1"= 50' HORIZ. 1"= 5' VERT.



TILE NO.

TYPE	YEAR	PROJECT NO.	SHEE1
R.O.W.	2006	NHE-16 (29)	47
CONST.	2017	NH-16 (54)	34

REVISION 09/06/11
ADDED CROSS DRAIN STA. 404+50.00.
REMOVED CROSS DRAIN STA. 432+60.00.



456+00.37

SID-1/-1/.

CLASS "A" CONCRETE 13B C.Y.

STEEL BAR REINFORCING 31055 LB.

FOUNDATION FILL MATERIAL 36 C.Y.

BACKFILLING 1080 TON

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CUL VERT SECTIONS

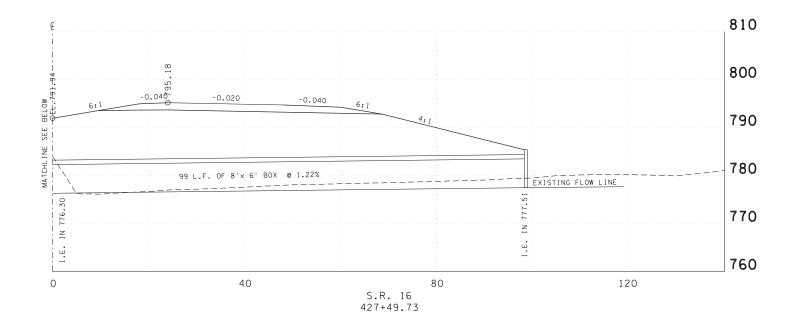
SCALE: 1"=10 ' HORIZ. 1"=10' VERT.

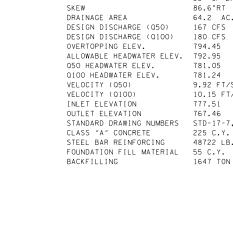
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TYPE	YEAR	PROJECT NO.	NO.	
R.O.W.	2006	NHE-16 (29)	48	
CONST.	2017	NH-16 (54)	35	
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STATION

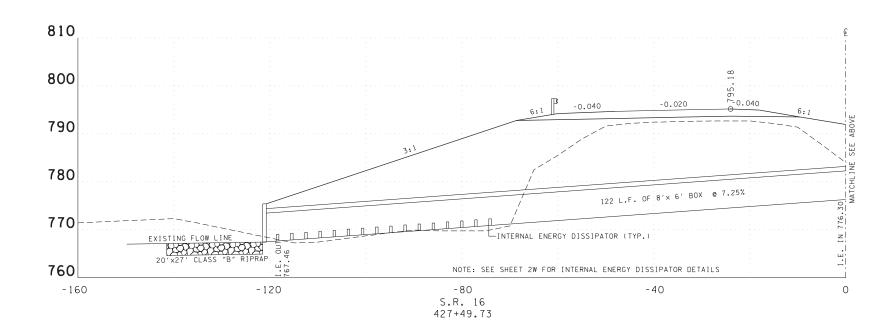
STRUCTURE

427+49.73 (STR-1) 221' OF 8' X 6' BOX CULVERT 68' OF EX. 8' X 6' ARCH CULVERT (TO BE REMOVED) 86.6°RT SKEW 86.6°RT
DRAINAGE AREA 64.2 AC.
DESIGN DISCHARGE (050) 167 CFS
DESIGN DISCHARGE (0100) 180 CFS
OVERTOPPING ELEV. 794.45
ALLOWABLE HEADWATER ELEV. 781.05
0100 HEADWATER ELEV. 781.05 UNOFFICIAL SET 781.24 9.92 FT/S 10.15 FT/S 777.51 767.46 STD-17-7,STD-17-10,STD-17-11,STD-17-17,STD-17-34,STD-17-53 225 C.Y. 48722 LB. NOT FOR **BIDDING**



STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

> **CUL VERT** SECTIONS

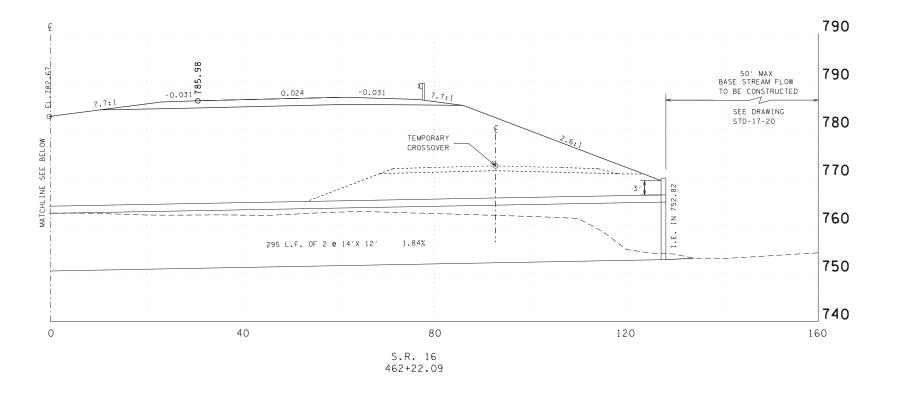




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TYPE	YEAR	PROJECT NO.	NO.
R.O.W.	2006	NHE-16 (29)	49
CONST.	2017	NH-16 (54)	36



462+22.09 (STR-3) 2 @ 14'X 12' 295' SLAB BRIDGE 45' RT 1.1 SO. MI. 1080 CFS STATION STRUCTURE SKEW DRAINAGE AREA 1.1 SO. MI.

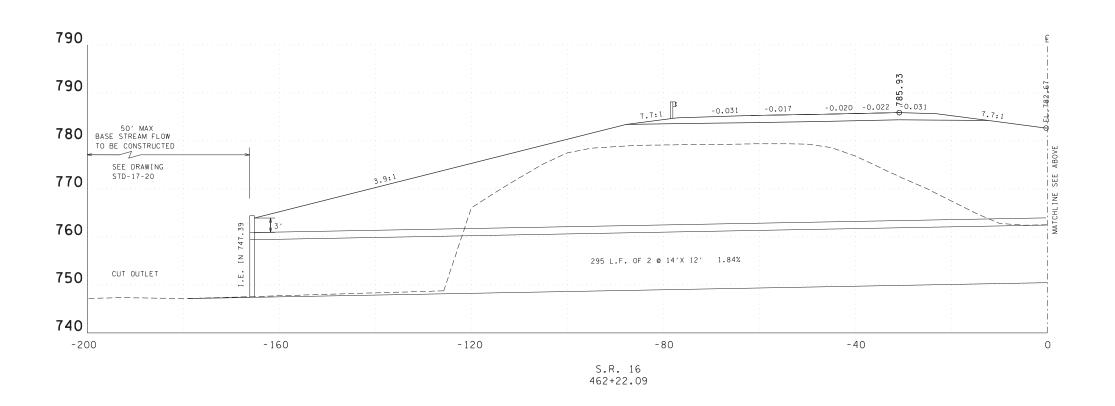
DESIGN DISCHARGE (0100) 1080 CFS
0100 BACKWATER 0.04 ft. at EL. 758.83
0100 VELOCITY 10.75 ft/s

DESIGN DISCHARGE (0500) 1320 cfs at EL. 759.42
OVERTOPPING ELEV. 786.50
ALLOWABLE HEADWATER ELEV. 782.00
INLET ELEVATION 752.82
OUTLET ELEVATION 747.39
STANDARD DRAWING NUMBERS STD-17-7, 10, 14, 17, & 114
STD-17-20
CLASS "A" CONCRETE 1203 C.Y.
STEEL BAR REINFORCING 174145 LB.
BACKFILLING 6243 TON DRAINAGE AREA CLASS "A" CONCRETE STEEL BAR REINFORCING BACKFILLING

6243 TON

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BIDDING





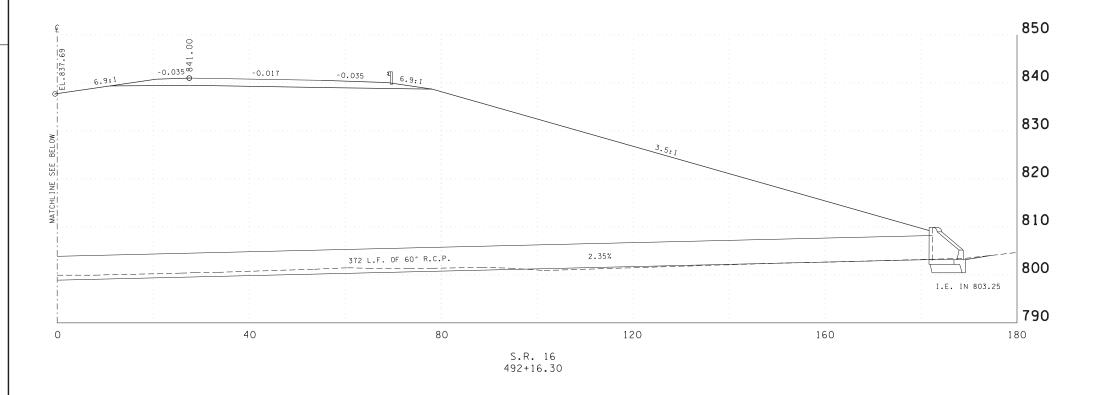
STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

> **CUL VERT** SECTIONS

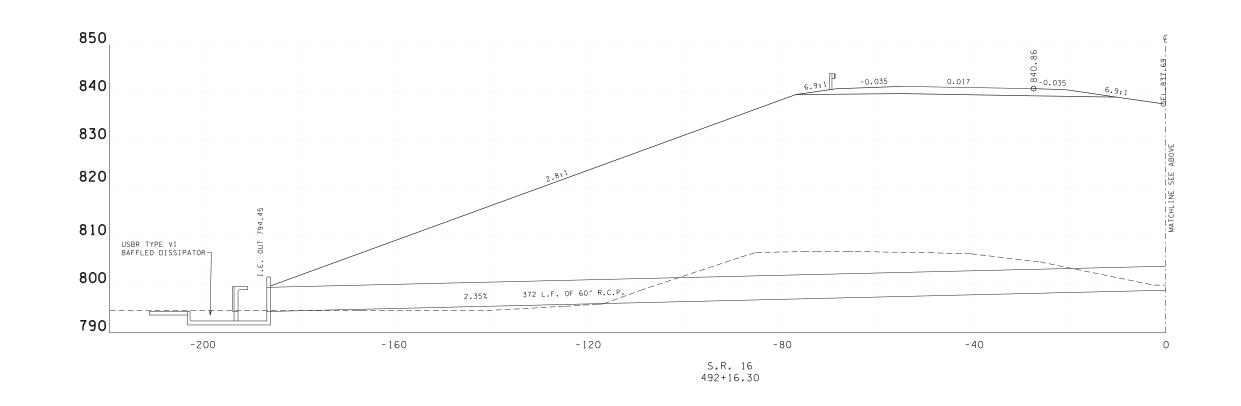


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TYPE	YEAR	PROJECT NO.	SHEET NO.	l
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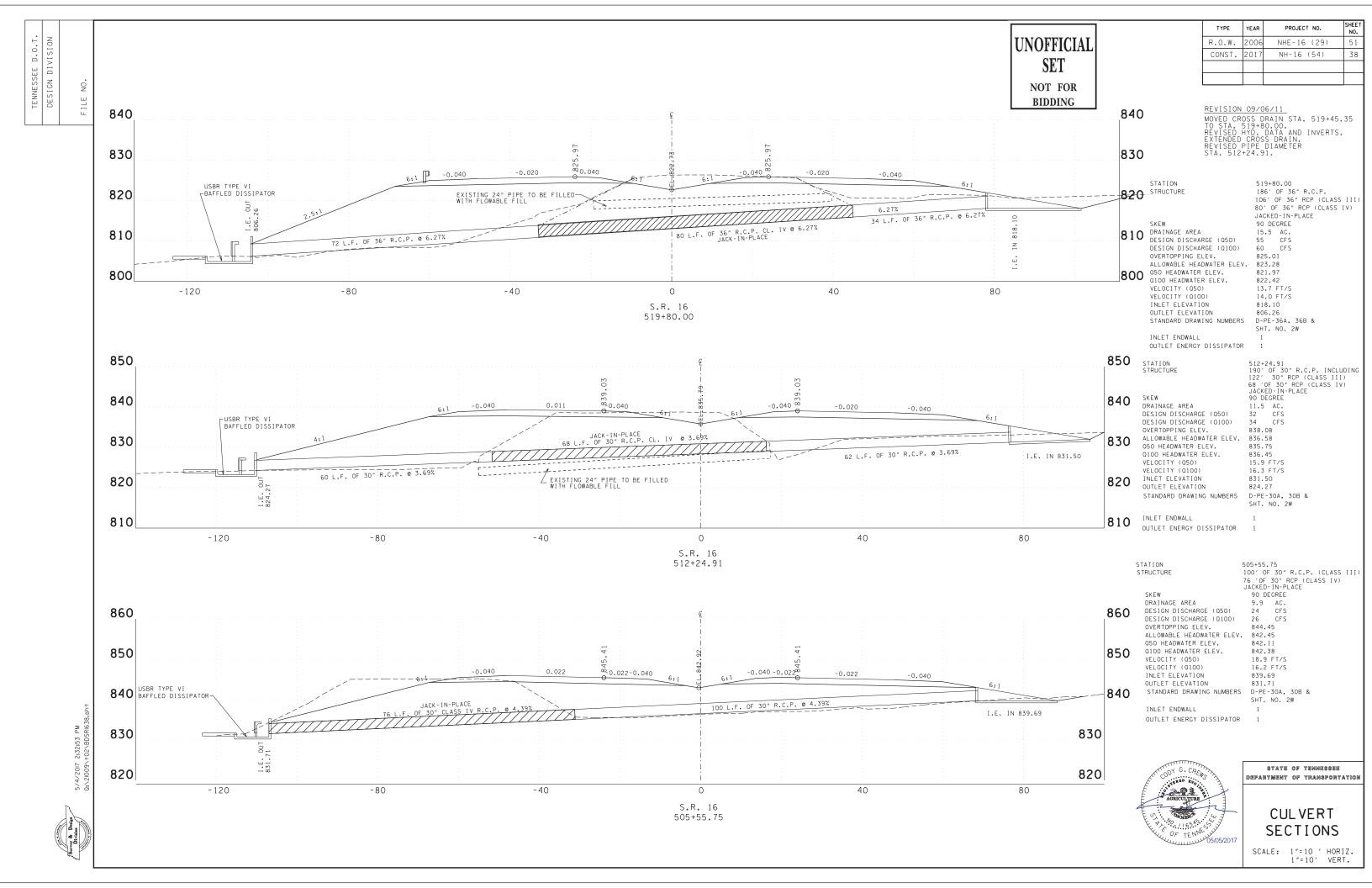


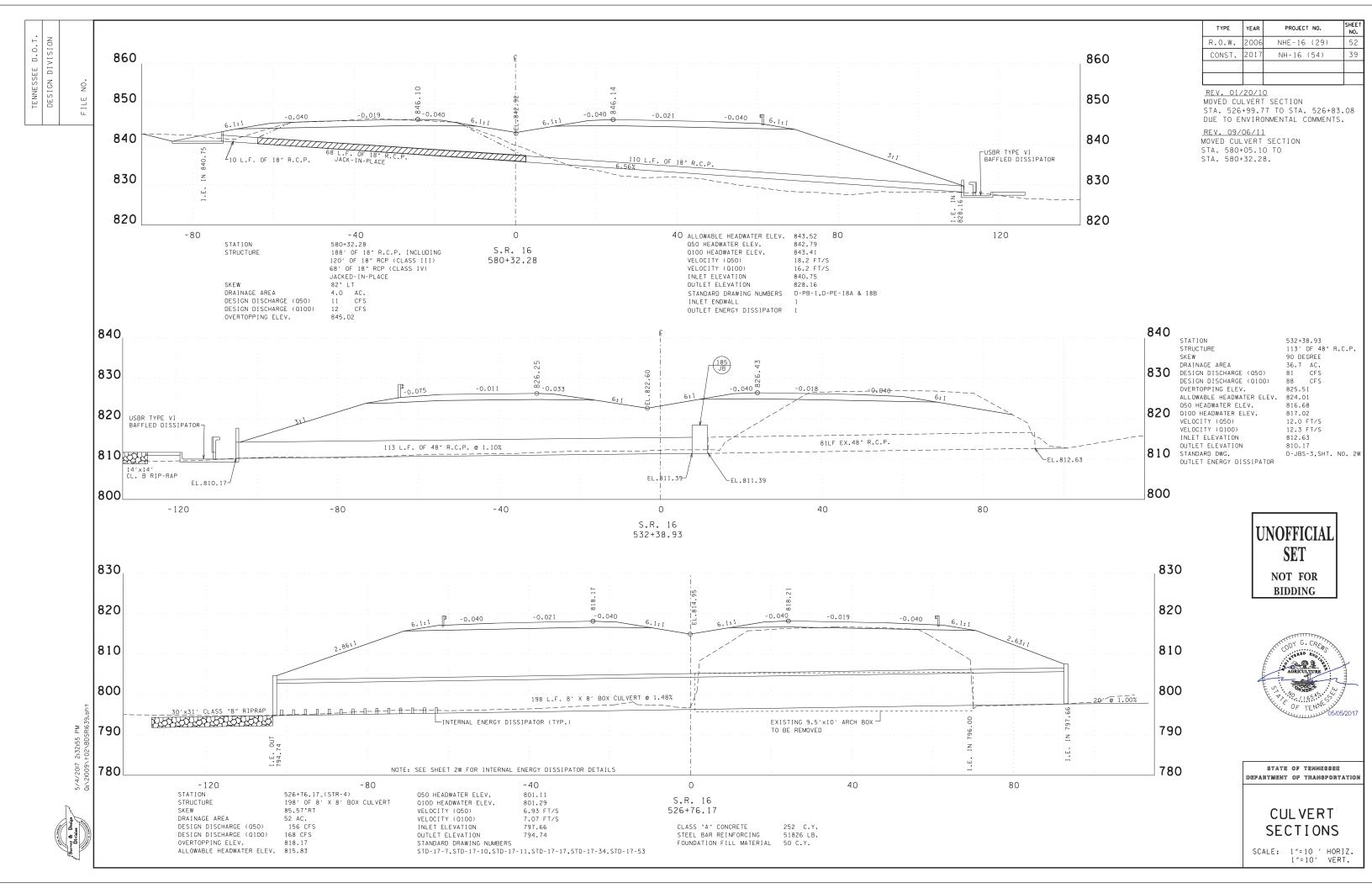


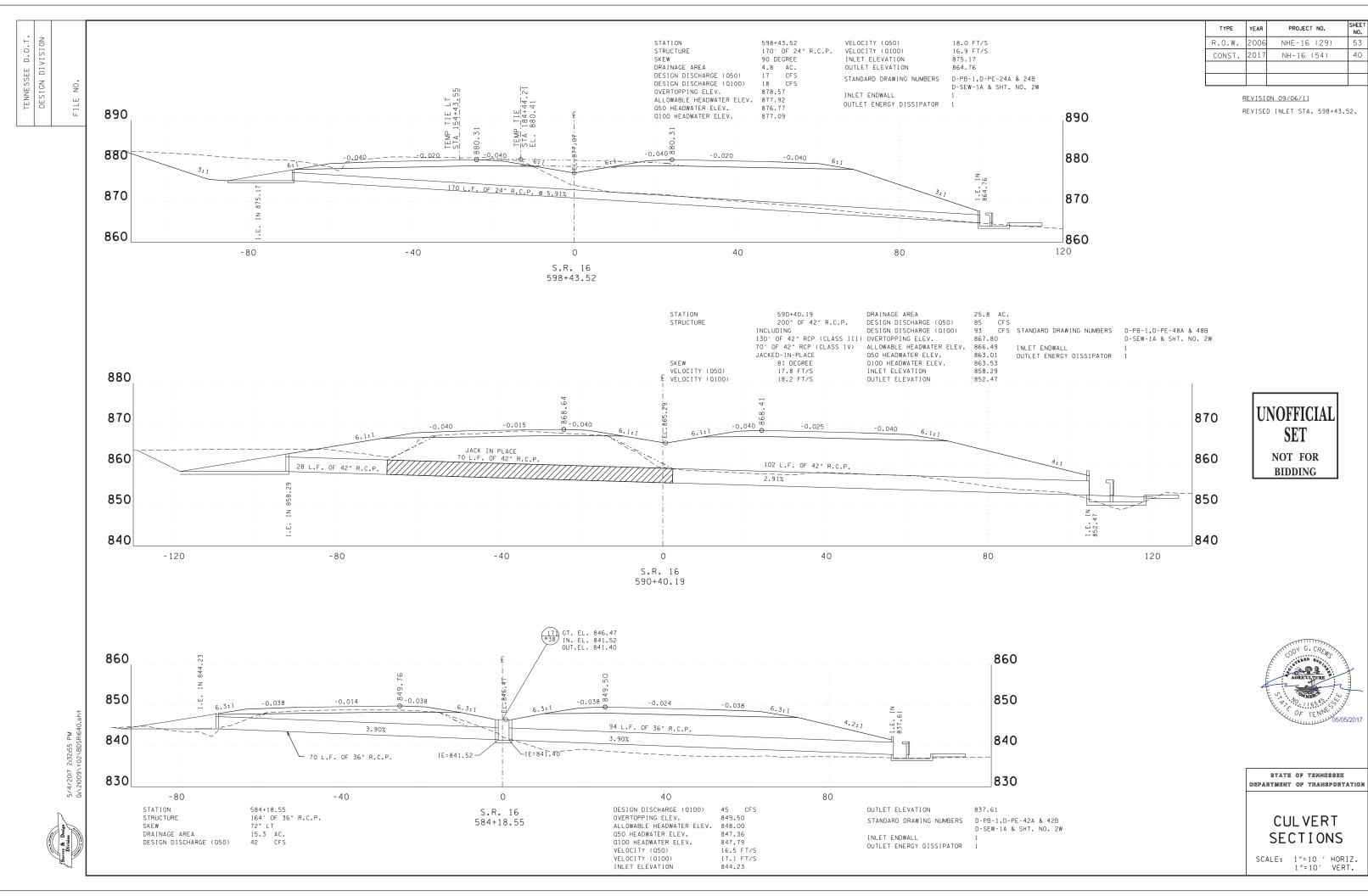
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CUL VERT SECTIONS

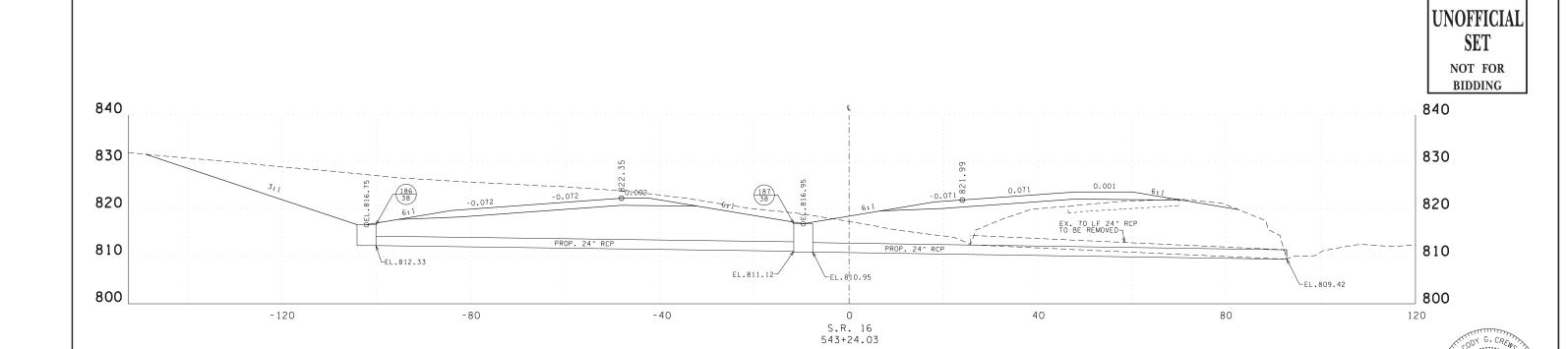








TENNESSEE D.O.T. DESIGN DIVISION TLE NO.								R.O.W.	
E D.								CONST.	2017 NH-16 (54)
LESSE IGN [900						900		
TENN	890			İ			890	STATION STRUCTURE	604+00.00 67' OF 18" R.C.P. INCLUDING:
	880	72.40	876.76	1 1 1 1 1 1 3 1 3 1 1 1 1 1 1 1 1 1 1 1	876.76		880	SKEW DRAINAGE AREA	24' OF 18" RCP (CLASS III) 43' OF 18" RCP (CLASS IV) JACKED-IN-PLACE 90° LT 4.37 AC.
	870	1.E. IN 872.40	-0.020 -0.040	6:1 6:1	040	8:1	870	DESIGN DISCHARGE (050) DESIGN DISCHARGE (0100) OVERTOPPING ELEV. ALLOWABLE HEADWATER ELEV. 050 HEADWATER ELEV. 0100 HEADWATER ELEV.	10.51 CFS 11.32 CFS 876.76 875.80 874.84 875.06
	860	-80	97 OF 18" PIPE	18" PIPE - 1.870.68 OUTLET EL. 870.657	40	I.E. OUT 869.97	860	VELOCITY (050) VELOCITY (0100) INLET ELEVATION OUTLET ELEVATION	8.84 FT/S 8.95 FT/S 872.40 869.94
				S.R. 16 604+00.00	,0		120		



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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

> CUL VERT SECTIONS

R.O.W. CONST. STRUCTURE SKEW 850 850 DRAINAGE AREA 0.022 0.047 840 840 050 HEADWATER ELEV. O100 HEADWATER ELEV. VELOCITY (050) VELOCITY (0100) 66 L.F. OF 24" R.C.P. @ 5.6% I.E.IN 835.60 830 INLET ELEVATION I.E.OUT 831.91 830 OUTLET ELEVATION 820 820 120 -120 -80 -40 0 40 80 WHITE SIDE HILL ROAD 81+07.88 840 840 830 830 SKEW DRAINAGE AREA DESIGN DISCHARGE(050) DESIGN DISCHARGE(0100) OVERTOPPING ELEV. 820 820 ALLOWABLE HEADWATER ELEV. O50 HEADWATER ELEV. O100 HEADWATER ELEV. VELOCITY (Q50) 810 VELOCITY (Q100) 810 INLET ELEVATION 0.040 -0.042 0.042 -0.029 40 L.F. OF 30" R.C.P. @ 2.00% 800 800 I.E.IN 801.83 1.E.OUT 800.14 CL A-1 RIP-RAP 790 790 -120 -80 -40 40 80 120 WHITE SIDE HILL ROAD 130+83.04 850 850 840 840 830 830 5/4/2017 2:32:58 PM 0:\2!009\+02\BDSRI642.sh+ 820 820 USBR TYPE VI BAFFLED DISSIPATOR 810 810 42 L.F. OF 36" R.C.P. @ 6.39% I.E.IN 808.00 RELOCATED STR-2 I.E.OUT 805.28 800 800 -80 133+15.94 42' OF 36" R.C.P. 90° 11.3 AC. 34 CFS -120 -40 0 40 80 120 STATION STRUCTURE DESIGN DISCHARGE(Q100) 37 CFS 811.02 15.0 FT/S 15.3 FT/S Q100 HEADWATER ELEV. WHITE SIDE HILL ROAD STANDARD DRAWING NUMBERS D-PB-1,D-PE-42A & 42B SHT. NO. 2W OVERTOPPING ELEV. 813.16 VELOCITY (Q50) VELOCITY (Q100) 133+15.94 ALLOWABLE HEADWATER ELEV. Q50 HEADWATER ELEV. 812.66 810.84 DRAINAGE AREA DESIGN DISCHARGE(Q50) INLET ELEVATION 808.00 805.28 OUTLET ENERGY DISSIPATOR

PROJECT NO. TYPE NHE-16 (29) NH-16 (54)

66′ OF 24″ R.C.P. 19.4° LT. 3.3 AC. DESIGN DISCHARGE(050) 8 CFS
DESIGN DISCHARGE(0100) 9 CFS
OVERTOPPING ELEV. 840.98
ALLOWABLE HEADWATER ELEV. 838.00 837.29 5.05 FT/S 5.28 FT/S 835.60 831.91 STANDARD DRAWING NUMBERS D-PB-1,D-PE-24A & 24B

8.0 AC. 28 CFS 31 CFS 806.58 806.08 804.84 805.12 10.6 FT/S 10.8 FT/S

801.83 OUTLET ELEVATION 800.14 STANDARD DRAWING NUMBERS D-PB-1,D-PE-30A & 30B

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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF PLANNING & DEVELOPMENT

> SIDE ROAD **CUL VERT** SECTIONS

|--|

TYPE	YEAR	PROJECT NO.	NO.
R.O.W.	2006	NHE-16 (29)	53D
CONST.	2017	NH-16 (54)	43

REV. 06/21/17 CHANGED SPECIAL DITCH ON STA. 106+16.79 TO BE STR-5A.

97+22.32 STRUCTURE 100' OF 30" R.C.P. DRAINAGE AREA 11.4 AC. 28 CFS 30 CFS 835.38 DESIGN DISCHARGE(Q50) DESIGN DISCHARGE(050)
DESIGN DISCHARGE(0100)
OVERTOPPING ELEV.
ALLOWABLE HEADWATER ELEV.
050 HEADWATER ELEV. 834.88 827.93 828.11 15.5 FT/S 15.8 FT/S 0100 HEADWATER ELEV. VELOCITY (050) VELOCITY (Q100) INLET ELEVATION 825.00 OUTLET ELEVATION 820.46 STANDARD DRAWING NUMBERS CLASS "A" CONCRETE STEEL BAR REINFORCING

D-PB-1, D-PE-4 2.0 C.Y. 93 LB.

STATION STRUCTURE 106+16.79 56'-6'X3' R.C.B.C. SKEW 39 AC. 108 CFS 117 CFS DRAINAGE AREA DESIGN DISCHARGE(050)
DESIGN DISCHARGE(0100) OVERTOPPING ELEV.
ALLOWABLE HEADWATER ELEV.
050 HEADWATER ELEV.
0100 HEADWATER ELEV. 783.07 782.77 782.89 783.14 VELOCITY (Q50) 6.0 FT/S VELOCITY (Q100) 6.4 FT/S INLET ELEVATION 778.05 777.52 STD-17-7, 17-10, 17-14, 17-17, 17-51 OUTLET ELEVATION STANDARD DRAWING NUMBERS CLASS "A" CONCRETE STEEL BAR REINFORCING 62 C.Y. 10699 LB.

> **UNOFFICIAI** SET

12 C.Y. 145 TON

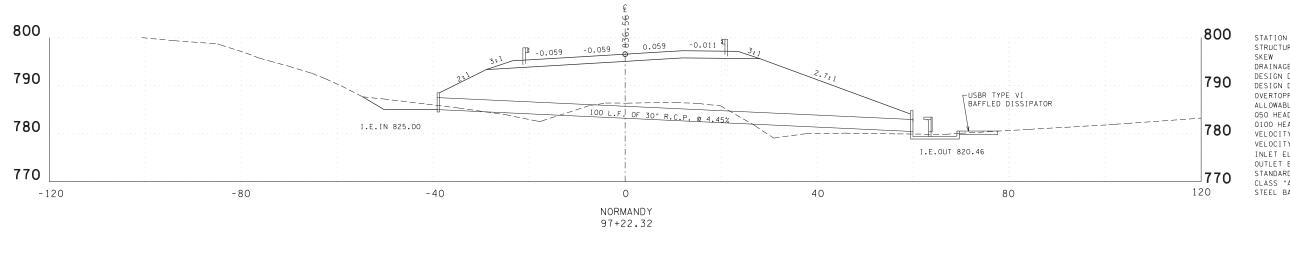
NOT FOR **BIDDING**

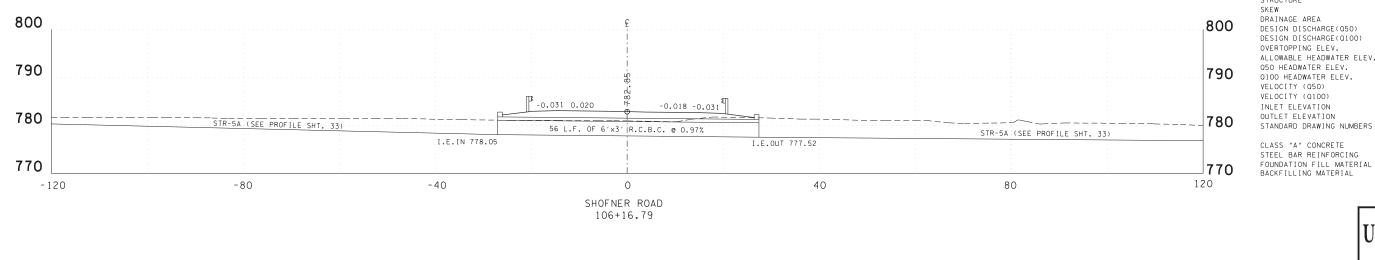


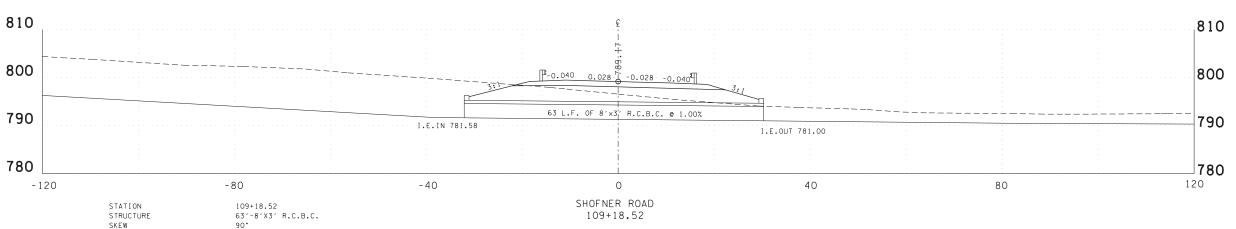
STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF PLANNING & DEVELOPMENT

> SIDE ROAD CULVERT SECTIONS

SCALE: 1"=10 ' HORIZ. 1"=10' VERT.







STRUCTURE SKEW DRAINAGE AREA DESIGN DISCHARGE(Q50) DESIGN DISCHARGE(Q100) OVERTOPPING ELEV. ALLOWABLE HEADWATER ELEV. Q50 HEADWATER ELEV. Q100 HEADWATER ELEV.

VELOCITY (Q50)

VELOCITY (Q100)

INLET ELEVATION

OUTLET ELEVATION

62.1 AC. 144 CFS 154 CFS

789.32

786.68 786.94

6.0 FT/S

6.4 FT/S

781.58

781.00

STANDARD DRAWING NUMBERS STD-17-7, 17-10, 17-11, 17-17, 17-52

INLET DRAWING NUMBERS

51 C.Y. 12432 LB. 16 C.Y. 286 TON

OUTLET DRAWING NUMBERS CLASS "A" CONCRETE STEEL BAR REINFORCING

FOUNDATION FILL MATERIAL BACKFILLING MATERIAL

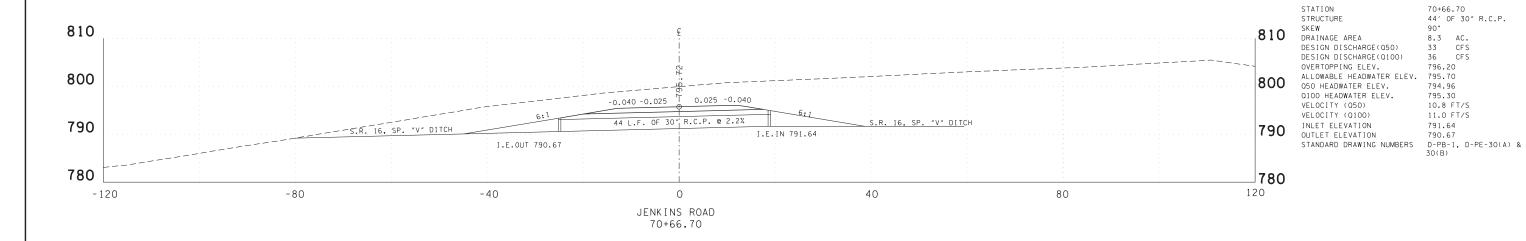
EE D.O.T.	
TENNESS! DESIGN	FIIF NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2011	NHE-16 (29)	53E
CONST.	2017	NH-16 (54)	44

70+66.70 44' OF 30" R.C.P.

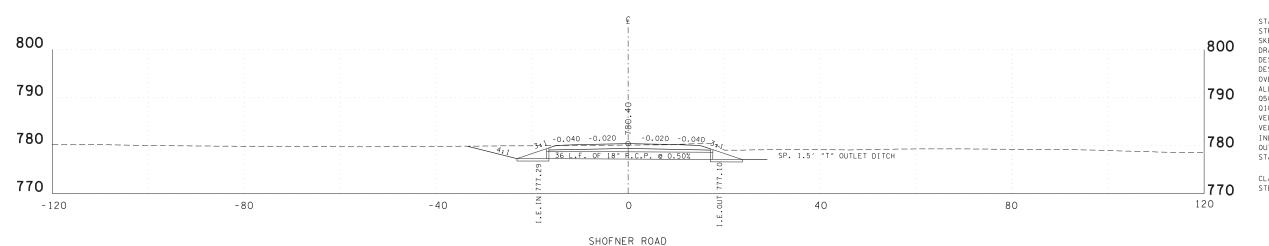
10.8 FT/S

11.0 FT/S



UNOFFICIAL SET

> NOT FOR **BIDDING**



105+00

105+00.00 36' OF 18" R.C.P. 90' 0.49 AC. 1.65 CFS 1.82 CFS 780.40 STATION STRUCTURE SKEW DRAINAGE AREA DESIGN DISCHARGE(050) DESIGN DISCHARGE(0100) OVERTOPPING ELEV.
ALLOWABLE HEADWATER ELEV.
050 HEADWATER ELEV.
0100 HEADWATER ELEV. 780.40 779.04 778.12 778.16 1.40 FT/S 1.49 FT/S 777.29 777.10 D-PB-1, D-PE-18A & 18B VELOCITY (Q100) INLET ELEVATION
OUTLET ELEVATION
STANDARD DRAWING NUMBERS

CLASS "A" CONCRETE STEEL BAR REINFORCING

2.10 C.Y. 264.00 LB.

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF PLANNING & DEVELOPMENT

> SIDE ROAD **CUL VERT** SECTIONS

SCALE: 1"=10 ' HORIZ. 1"=10' VERT.



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EPSC NOTES

STREAMS, WETLANDS & BUFFER ZONES

- ANY WORK WITHIN THE STREAM CHANNEL AREA (E.G., PIER FOOTING, RIP-RAP PLACEMENT, CULVERT/BRIDGE CONSTRUCTION, ETC.) SHALL BE SEPARATED FROM FLOWING WATER OR EXPECTED FLOW PATH AND PERFORMED DURING LOW FLOW CONDITIONS. ALL ITEMS USED WITHIN THE STREAM CHANNEL AREA FOR DIVERSION OF FLOW (OR EXPECTED FLOW), UNLESS SPECIFIED IN THE PLANS, SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE COST OF OTHER ITEMS. THIS NOTE EXCLUDES ANY ITEMS SPECIFIED IN THE PLANS FOR THE TEMPORARY DIVERSION CHANNELS (EC-STR-31) AND TEMPORARY DIVERSION CULVERTS (EC STR-32) FOR SINGLE BARRÉL CULVERT CONSTRUCTION.
- ONCE WATER IS DIVERTED INTO A NEWLY CONSTRUCTED AND STABILIZED RELOCATED STREAM / CHANNEL, THE ECOLOGY SECTION SHALL BE NOTIFIED. THE STREAM NAME, STREAM NUMBER, AND DATE THE WATER WAS DIVERTED INTO THE NEWLY CONSTRUCTED STREAM / CHANNEL SHALL BE SUPPLIED WITH THE NOTIFICATION.

ENVIRONMENTAL

EXCEPT AS OTHERWISE SPECIFIED, THERE ARE NO KNOWN SPECIAL ENVIRONMENTAL FACTORS PRESENT ON THIS PROJECT THAT INDICATE A NEED FOR SEASONAL LIMITATIONS ON THE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OPERATIONS OR ON THE TOTAL AREA OF EXPOSED SOIL.

STORM WATER OUTFALLS

STORM WATER OUTFALLS

STAGE 2 (CONT'D.)

0.4

0.2

0.2

1.9

0.6

1.3

2.3

1.5

0.9

0.3

1.6

2.1

0.9

0.9

2.0

2.3

0.2

70

71

72A

72B

73

74

76

77

100

102

104

105

AC. SLOPE (%)

6.38

2.58

0.90

2.30

2.98

3.29

3.37

4.75

2.35

4.71

7.23

10.06

18.46

11.35

OUTFALL AREA AVG.

	STORM WATER OUTFALLS STAGE 1						
	OUTFALL	AREA	AVG.				
	NO.	AC.	SLOPE (S				
	1	1.1	1.08				
	2	1.4	6.48				
	3	2.1	4.71				
(1)	4	12.4	7.05				
	5	6.8	4.54				
	5A	0.4	8.70				
	6	1.1	3.10				
	7	0.5	5.85				
(2)	8	7.2	14.32				
	8A	2.0	12.03				
	8B	2.3	13.59				
- 1	00	0.4	0.40				

	7	0.5	5.85	
2)	8	7.2	14.32	
	8A	2.0	12.03	
	8B	2.3	13.59	
	8C	2.1	9.12	
	8D	0.8	15.03	
	9	0.8	3.67	
	10	3.6	5.17	
	11	2.2	4.92	
	12	1.8	10.05	
	13	3.9	3.79	
	14	0.3	10.25	
	15	4.9	1.02	
	16	4.4	6.05	
	17	2.2	8.81	
	18	0.1	7.14	
	19	2.0	4.56	
	20	0.2	2.13	
	21	11.5	14.07	
	21A	1.6	4.56	
	21B	0.4	2.42	
	23	1.5	2.22	
	24	0.3 4.96		
	25	0.7	10.24	
	26	0.5	2.42	
	27	0.6	5.80	(
	28	1.6	3.80	
	29	0.8	3.41	
	30	0.1	0.90	
	31	0.1	0.90	
	32	4.3	3.84	
	33	4.1	2.55	
	34	0.2	8.37	
	35	0.2	7.43	
	36	4.7	5.82	
	37	0.5	4.58	
	38	0.6	4.96	
	39	1.1	5.21	
	40	1.2	4.99	
	41	2.2	9.50	
	42	4.9	13.09	
	43	3.9	8.91	
	65	8.2	3.60	
	00	0.5	1 10	ı

	STORM WATER OUTFALLS STAGE 2						
	OUTFALL	AREA	AVG. SLOPE (%)				
	NO.	AC.					
	1	1.1	1.08				
	2	1.4	6.48				
	4A	1.8	7.78				
	12	1.8	10.05				
	15	4.9	1.02				
	17 18	2.2 0.1	8.81				
	19	1000000	7.14 4.56				
	20	0.2	2.13				
	21	11.5	14.07				
	28	1.6	3.80				
	30 31	0.1	0.90				
	31	0.1	0.90 8.37				
	35	0.2	7.43				
	500.00	4.7	5.82				
	36 40	1.2	4.99				
	42	4.9	13.09				
	43	3.9	8.91				
	44						
	45	0.4	5.54 6.64				
	46	0.6	2.74				
	48	1.5	1.86				
2)	50	14.3	9.75				
-/	50A	0.7	3.44				
	50B	9.0	28.83				
	50C	4.6	10.07				
	52	0.2	4.57				
	53	0.7	3.44				
	54	2.8	1.52				
	55	2.7	4.98				
	56	2.5	8.86				
	57	0.3	9.57				
	58	1.1	1.18				
	59	1.7	1.41				
	61	1.3	2.05				
	62	1.1	1.53				
	63	0.3	9.26				
	64	1.3	2.18				
	65	8.2	3.60				
	65A	1.1	2.07				
	65B	4.9	4.38				
- 1	66						
-							
ł	68		2.42				
	66 67	1.8 3.3 0.5	4.13 4.69				

		\bigcirc		ROCK CHECK DAM (TRAPEZOIDAL DITCH)				
		lack		ENHANCED ROCK CHECK DAM (V-DITCH)				
		lacksquare			ROCK CHEC DAL DITCH		EC	-STR-6A
		@	CULVER' (TYPE		ROTECTION		EC	-STR-11
				CATCH BASIN PROTECTION (TYPE A)				
				CATCH BASIN PROTECTION (TYPE D)				
		Œ	TEMPOR, EXIT	TEMPORARY CONSTRUCTION EXIT				
	STORM WATER OUT STAGE 3		JTFALLS			WATER		TFALLS Γ'D.)
	OUTFALL	AREA	AVG. SLOPE (%)		OUTFALL	ARE	A	AVC.
ŀ	NO. 1	AC.	1.08		NO.	AC		SLOPE (%
ŀ	2	1.4	6.48		91	0.3		4.87
ŀ	6	1.1	3.10		92	1.2		5.88
ı	7	0.5	5.85		93	0.7		1.29
ı	11	2.2	4.92		94	0.7		4.34
	14	0.3	10.25		95	1.4		1.22
	19	2.0	4.56		96	1.1		5.17
	20	0.2	2.13		97	0.4	(7.02
	23	1.5	2.22	2.22 98 2.8				2.49

EROSION PREVENTION AND

SEDIMENT FILTER BAG

SILT FENCE WITH WIRE

ROCK CHECK DAM (V-DITCH

SILT FENCE

CONTROL LEGEND

STD. DWG.

EC-STR-2

EC-STR-3B

EC-STR-3E

EC-STR-3C

C-STR-3

EC-STR-6

0.9

103

SEDIMENT

SYMBOL

* | | |

*8FB * SFB *

* SF * SF * SF

*SFB*SFB*SFE

	OUTFALL	AREA	AVG.	
	NO.	AC.	SLOPE (%)	
	1	1.1	1.08	
	2	1.4	6.48	H
	6	1.1	3.10	-
	7	0.5	5.85	
	11	2.2	4.92	
	14	0.3	10.25	
	19	2.0	4.56	
	20	0.2	2.13	
	23	1.5	2.22	
	24	0.3	4.96	-
	25	0.7	10.24	<u> </u>
	26	0.5	2.42	
	27	0.6	5.80	
	33	4.1	2.55	
	38	0.6	4.96	
	54	2.8	1.52	
	58	1.1	1.18	
	59	1.7	1.41	
	61	1.3	2.05	
	65	8.2	3.60	
	65A	1.1	2.07	
	65B	4.9	4.38	
	66	1.8	4.13	
	69	0.4	6.38	
2)	72	1.9	0.93	
	72A	0.6	2.30	
	72B	1.3	2.98	
	73	2.3	3.29	
	74	1.5	3.37	
	78	8.0	1.34	
	79			
	80			
	81			
	82	4.6	2.39	
	83	0.7	9 27	
	84			
	85	0.3	7.37	
	86	9.9	3.43	
	86A	4.2	2.97	
	86B	0.7	14.29	
	86C	0.4	13.53	
	87	4.1	9.74	
	88	0.4	1.87	
	89	11.5	14.07	
	90	0.8	2.07	

пппппппп	TEMPORARY BERM	EC-STR-27
)—	TEMPORARY SLOPE DRAIN	EC-STR-27
—I N— D I V —	INSTREAM DIVERSION	EC-STR-30 EC-STR-30A
==	TEMPORARY DIVERSION CHANNEL (AS SHOWN IN PLANS)	EC-STR-31 EC-STR-31A
	TEMPORARY DIVERSION CULVERT (PIPE SIZE AND NUMBER SHOWN ON PLANS)	EC-STR-32
	SUSPENDED PIPE DIVERSION	EC-STR-33 EC-STR-33A
	EROSION CONTROL BLANKET	EC-STR-34
2000000000	TURF REINFORCEMENT MAT	EC-STR-36
** TUBE ** TUBE **	SEDIMENT TUBE	EC-STR-37
	CATCH BASIN FILTER ASSEMBLY (TYPE 1)	EC-STR-41 EC-STR-41A
	CATCH BASIN FILTER ASSEMBLY (TYPE 2)	EC-STR-42 EC-STR-42A
3) + ↓ LS ↓ ↓ LS ↓ ↓ LS	LIVE SILTATION	D-NSD-34
3) ♦↓∟₣↓↓∟₣↓↓∟₣	LIVE FASCINES	D-NSD-35
* HVF * HVF	HIGH VISIBILITY FENCE	S-F-1
OUT_	STORM WATER OUTFALL	N.A.

Δ)	APPLY	"J"	HOOKS	WHEN	NOT	PARALLEL	WITH	CONTOURS
B)	TO BE	FIEL	D LOCA	ATED				

STORM WATER OUTFALLS

AC.

0.4

0.2

0.2

1.9

0.6

1.3

2.3

1.5

0.9

0.3

1.6

8.0

0.8

2.1 0.3

4.6

0.7

1.7

0.3

9.9

4.2

0.7

0.4

4.1

0.4

11.5

0.8

0.3

1.2

0.7

0.7

1.4

0.4

98 2.8

SLOPE

6.38

2.58

0.90

0.93

2.30

2.98

3.29

3.37

1.17

4.75

2.35

1.34

4.72

2.28

4.76

2.39

9.27

0.62

7.37

3.43

2.97

14.29

13.53

9.74

1.87

14.07

2.07

4.87

5.88

1.29

4.34

1.22 5.17

7.02 2.49

OUTFALL AREA

69

70

71

72

72A

72B

73

74

75

76

77

79

80

81

82

83

84

85

86

86A

86B

86C

87

88

89

90

91

92

93

94

TFALLS 'D.)		STORM WATER OUTFALLS STAGE 4					
AVC.		OUTFALL	AREA	AVG.			
SLOPE (%)		NO.	AC.	SLOPE (%)			
, ,		1	1.1	1.08			
4.87		2	1.4	6.48			
5.88		11	2.2	4.92			
1.29		14	0.3	10.25			
4.34		17	2.2	8.81			
1.22		13	0.1	7.14			
5.17		19	2.0	4.56			
7.02		20	0.2	2.13			
2.49		23	0.5	2.42			
6.30		27	0.6	5.80			
0.50	l,	23	1.6	3.80			
		30	0.1	0.90			
		31	0.1	0.90			
		33	4.1	2.55			
		34	0.2	8.37			
		35	0.2	7.43			
		33	4.7	5.82			
		33	0.6	4.96			
		42	4.9	13.09			
		43	3.9	8.91			
		44	2.2	5.54			
		45	0.4	6.64			
		43	0.6	2.74			
		43	1.5	1.86			
	(2)	50	14.3	9.75			
		5CA	0.7	3.44			
		5CB	9.0	28.83			
		50C	4.6	10.07			
		52	0.2	4.57			
		53	0.7	3.44			
		54	2.8	1.52			
		55	2.7	4.98			
		53	2.5	8.86			
		57	0.3	9.57			
		53	1.1	1.18			
		59	1.7	1.41			
		61	1.3	2.05			
		62	1.1	1.53			
		64	1.3	2.18			
		65	8.2	3.60			
		65A	1.1	2.07			
		65B	4.9	4.38			

3.3 4.69

68 0.5 2.42

EM NO. 01 02.07 03.45 05 08.02 08.03 08.07 09.01 09.03 10.02	RCAD & DRAIN EXCAVATION (UNCLASSIFIED) 18' TEMPORARY SLOPE DRAIN STREAM MITIGATION - LIVE FASCINES (SPECIES) SEDIMENT REMOVAL TEMPORARY SILT FENCE (WITH BACKING) TEMPORARY SILT FENCE (WITHOUT BACKING) RCCK CHECK DAM ENHANCED ROCK CHECK DAM SANDBAGS SEDIMENT FILTER BAG (15' X 15')	UNIT C.Y. L.F. C.Y. L.F. L.F. EACH EACH BAG	TOTAL QUANTITY 21995 625 3180 3179 67620 35090 380 193
-02.07 -03.45 -05 -08.02 -08.03 -08.07 -08.08 -09.01 -09.03 -10.02	18' TEMPORARY SLOPE DRAIN STREAM MITIGATION - LIVE FASCINES (SPECIES) SEDIMENT REMOVAL TEMPORARY SILT FENCE (WITH BACKING) TEMPORARY SILT FENCE (WITHOUT BACKING) RCCK CHECK DAM ENHANCED ROCK CHECK DAM SANDBAGS SEDIMENT FILTER BAG (15' X 15')	L.F. L.F. C.Y. L.F. L.F. EACH	625 3180 3179 67620 35090 380
-03.45 -05 -08.02 -08.03 -08.07 -08.08 -09.01 -09.03 -10.02	STREAM MITIGATION - LIVE FASCINES (SPECIES) SEDIMENT REMOVAL TEMPORARY SILT FENCE (WITH BACKING) TEMPORARY SILT FENCE (WITHOUT BACKING) RCCK CHECK DAM ENHANCED ROCK CHECK DAM SANDBAGS SEDIMENT FILTER BAG (15' X 15')	L.F. C.Y. L.F. L.F. EACH	3180 3179 67620 35090 380
-05 -08.02 -08.03 -08.07 -08.08 -09.01 -09.03 -10.02	SEDIMENT REMOVAL TEMPORARY SILT FENCE (WITH BACKING) TEMPORARY SILT FENCE (WITHOUT BACKING) RCCK CHECK DAM ENHANCED ROCK CHECK DAM SANDBAGS SEDIMENT FILTER BAG (15' X 15')	C.Y. L.F. L.F. EACH	3179 67620 35090 380
-08.02 -08.03 -08.07 -08.08 -09.01 -09.03 -10.02	TEMPORARY SILT FENCE (WITH BACKING) TEMPORARY SILT FENCE (WITHOUT BACKING) RCCK CHECK DAM ENHANCED ROCK CHECK DAM SANDBAGS SEDIMENT FILTER BAG (15' X 15')	L.F. L.F. EACH	67620 35090 380
-08.03 -08.07 -08.08 -09.01 -09.03 -10.02	TEMPORARY SILT FENCE (WITHOUT BACKING) RCCK CHECK DAM ENHANCED ROCK CHECK DAM SANDBAGS SEDIMENT FILTER BAG (15' X 15')	L.F. EACH EACH	35090 380
-08.07 -08.08 -09.01 -09.03 -10.02	RCCK CHECK DAM ENHANCED ROCK CHECK DAM SANDBAGS SEDIMENT FILTER BAG (15' X 15')	EACH EACH	380
-08.08 -09.01 -09.03 -10.02	ENHANCED ROCK CHECK DAM SANDBAGS SEDIMENT FILTER BAG (15' X 15')	EACH	
-09.01 -09.03 -10.02	SANDBAGS SEDIMENT FILTER BAG (15' X 15')		193
-09.03 -10.02	SEDIMENT FILTER BAG (15' X 15')	BAG	
-10.02			7705
		EACH	16
-20.03	8" SKIMMER W/ 6" HEAD	EACH	1
_3.00	PCLYETHYLENE SHEETING (6 MIL. MINIMUM)	S.Y.	13124
-40.30	CATCH BASIN PROTECTION (TYPE A)	EACH	5
-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	15
-40.41	CATCH BASIN FILTER ASSEMBLY (TYPE 1)	EACH	19
-40.42	CATCH BASIN FILTER ASSEMBLY (TYPE 2)	EACH	14
-65.03	TEMPORARY DIVERSION CHANNEL	L.F.	6373
-65.04	TEMPORARY IN STREAM DIVERSION	L.F.	866
-10.01	MINERAL AGGREGATE (SZE 57)	TON	363
-03.02	18' TEMPORARY DRAINAGE PIPE	L.F.	2133
-03.09	60' TEMPORARY DRAINAGE PIPE	L.F.	212
-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	,000
-05.05	MACHINED RIPRAP (CLASS A-3)	TON	1000
05.06	MACHINED RIPRAP (CLASS A-1)	TON	9399
-10.03	GEOTEXTILE (TYPE III) (EROSION CONTROL)	S.Y.	13993
-11.03	TEVPORARY SEDIMENT TUBE 18IN	L.F.	14122
-01	SEEDING (WITH MULCH)	UNIT	3653
-01.07	TEVPORARY SEEDING (WITH MULCH)	UNIT	22
-02	SEEDING (WITHOUT MULCH)	UNIT	100
-01.02	TURF REINFORCEMENT MAT (CLASS II)	S.Y.	32759
-01.03	TURF REINFORCEMENT MAT (CLASS III)	S.Y.	2527
-12.01	EROSION CONTROL BLANKET (TYPE I)	S.Y.	53015
-12.02	EROSION CONTROL BLANKET (TYPE II)	S.Y.	33934
TO BE USE	D AS DIRECTED BY THE ENGINEER.		
NCLUDES	13,660 S.Y. FOR DRIVE SLOPES.		
	40.41 40.42 -65.03 -65.04 10.01 10.01 03.02 03.09 08.11 05.05 06.06 10.03 11.03 01 01.07 02 01.02 01.02 01.02 01.02 03.09 05.05 06.06 10.03 11.03 01 01.07 02 01.02 03.02 03.09 04.03 05.05 06.06 07.05 08.05 08.05 09.05	40.41 CATCH BASIN FILTER ASSEMBLY (TYPE 1) 40.42 CATCH BASIN FILTER ASSEMBLY (TYPE 2) 65.03 TEWPORARY DIVERSION CHANNEL 66.04 TEWPORARY IN STREAM DIVERSION 10.01 MINERAL AGGREGATE (S ZE 57) 03.02 18' TEMPORARY DRAINAGE PIPE 03.09 60' TEMPORARY DRAINAGE PIPE 08.11 HIGH-VISIBILITY CONSTRUCTION FENCE 05.05 MACHINED RIPRAP (CLASS A-3) 06.06 MACHINED RIPRAP (CLASS A-1) 10.03 GEOTEXTILE (TYPE III) (EFOSION CONTROL) 11.03 TEWPORARY SEDIMENT TUBE 18IN 01 SEEDING (WITH MULCH) 01.07 TEWPORARY SEDING (WITH MULCH) 02 SEEDING (WITHOUT MULCH) 01.02 TURF REINFORCEMENT MAT (CLASS III) 12.01 EROSION CONTROL BLANKET (TYPE I)	A0.41

- (4) INCLUDES 628 C.Y. FOR SEDIMENT BASIN.
- (5) INCLUDES 186 TON FOR SEDIMENT BASIN. (6) INCLUDES 249 S.Y. FOR SEDIMENT BASIN.
- (7) FOR SEDIMENT BASIN.

STORM WATER OUTFALLS STAGE 4 (CONT'D.)						
OUTFALL AREA AVG.						
NO.	AC.	SLOPE (%)				
100	2.1	4.71				
102	0.9	723				
105	2.0	18.46				
106	2.3	11.35				
107	0.2	15.56				
NOTE:	_					

OUTFALLS 22, 47, 49, 51, & 60 NOT USED.

(1) SEDIMENT BASIN OUTFALL AREA (2) INDICATES NO ADDITIONAL AREA CONTRIBUTING TO OUTFALL OTHER THAN SUB-OUTFALLS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	NH-16 (54)	45

REV. 06/21/17 REVISED ITEM NO. 805-01.02 AS PER STR-5A CHANGES.

> UNOFFICIAL NOT FOR **BIDDING**



STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN TABULATION, LEGEND

AND NOTES

101

102

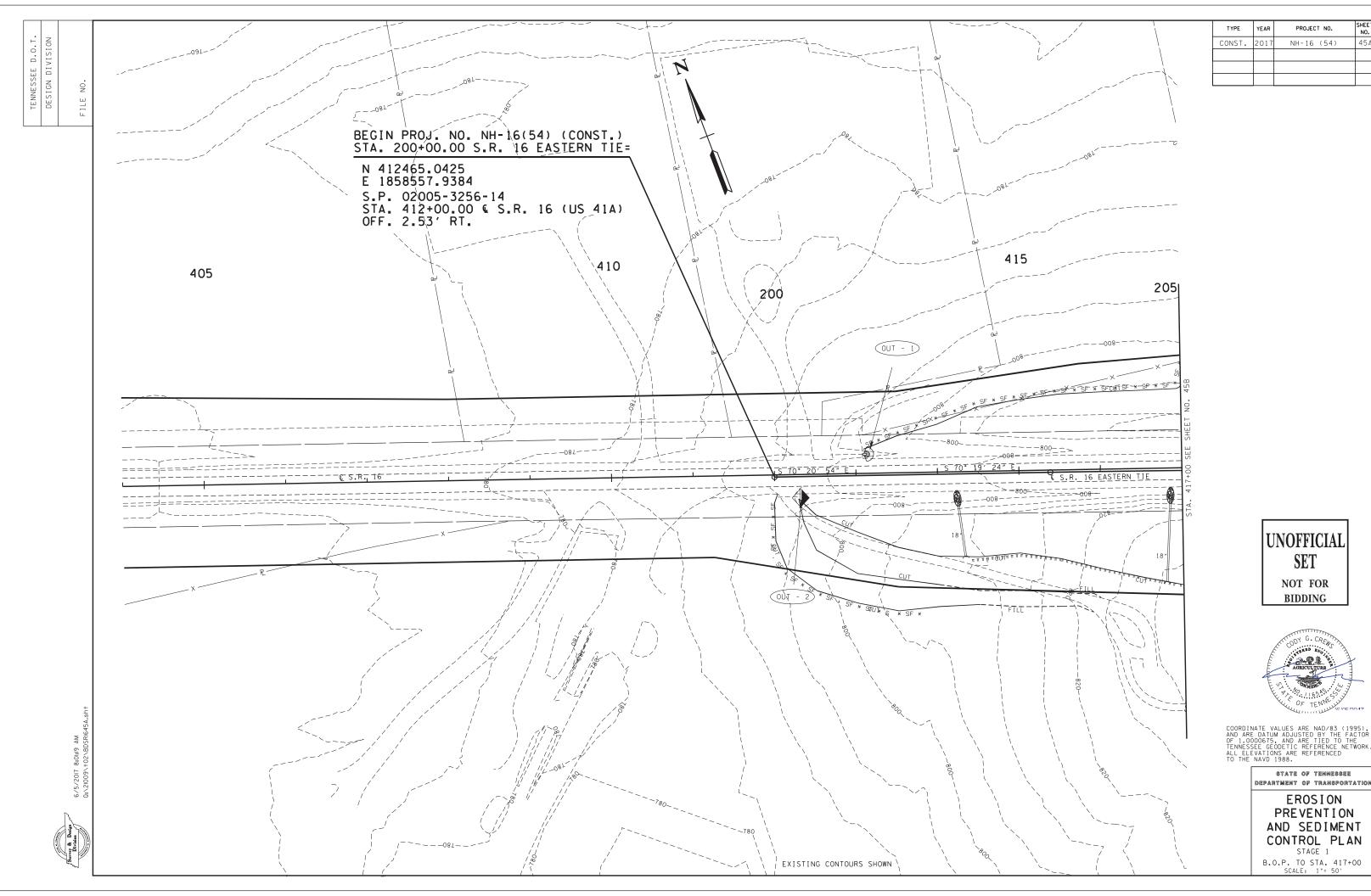
9.0 21.00

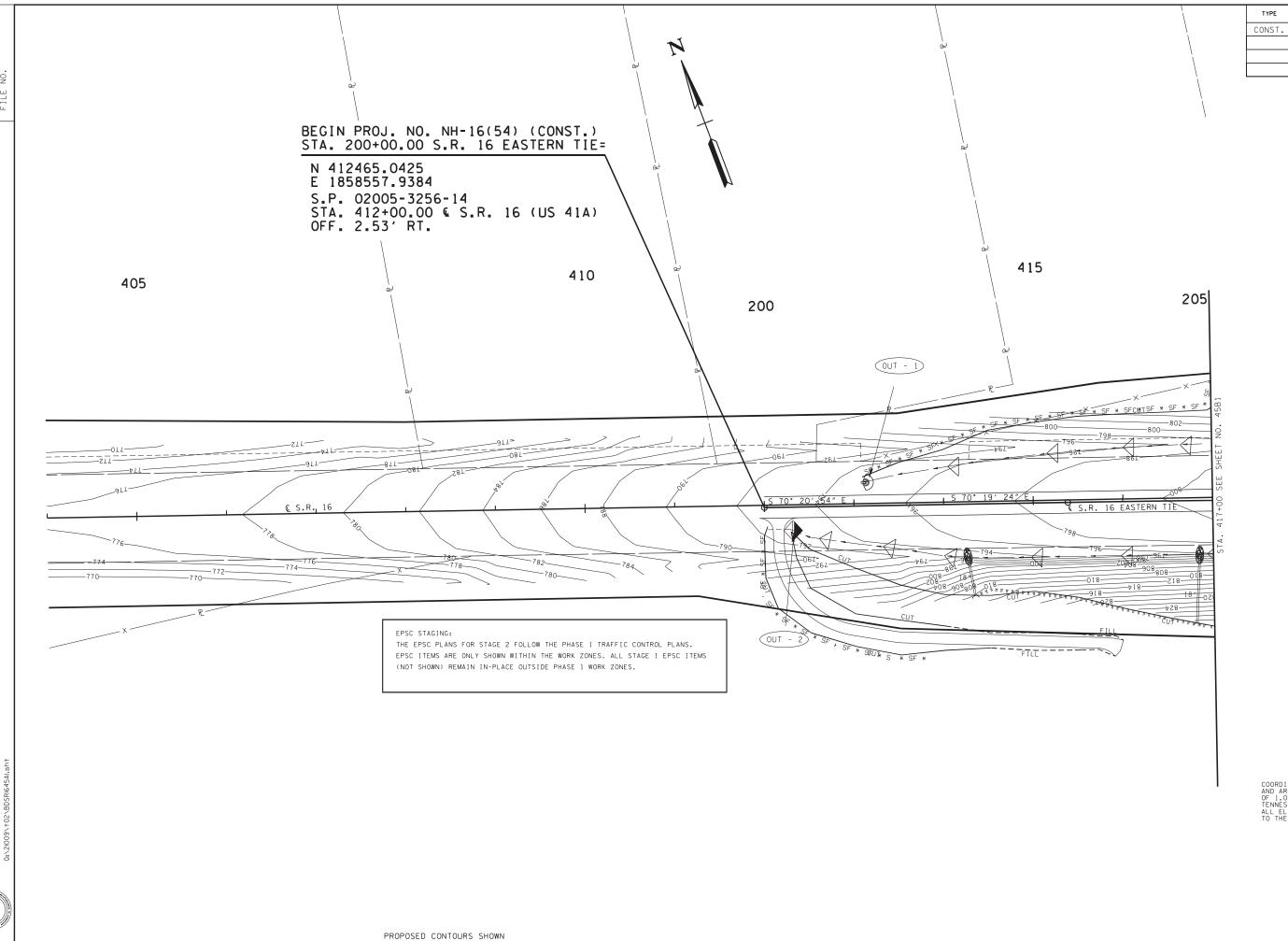
7.23

10.06

0.9

0.9





PROJECT NO.

NH-16 (54)

UNOFFICIAL SET

NOT FOR BIDDING

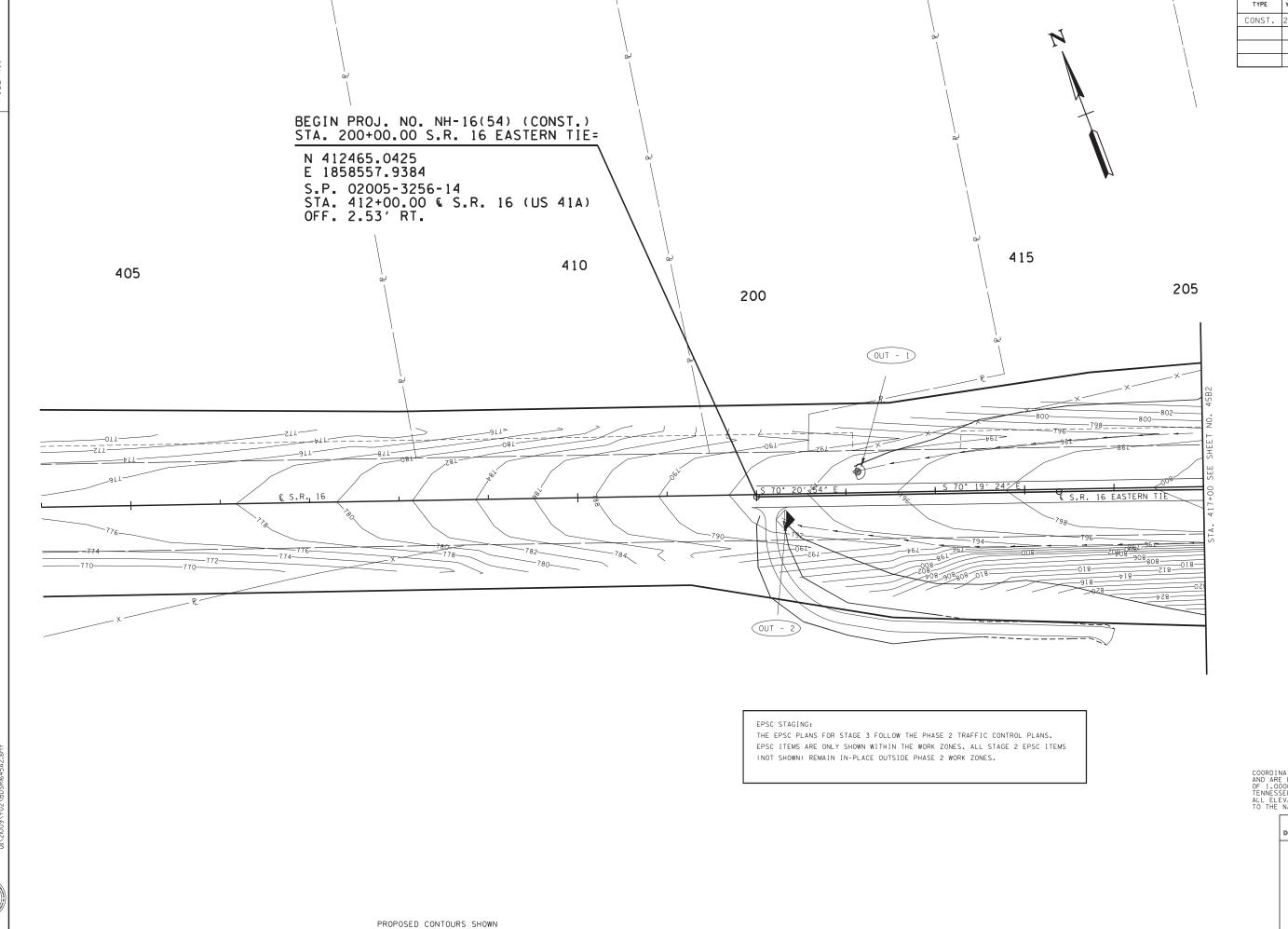


COORDINATE VALUES ARE NAD/83 (1995), AND ARE DATUM ADJUSTED BY THE FACTOR OF 1.0000675, AND ARE TIED TO THE TENNESSEE GEODETIC REFERENCE NETWORK ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988

> STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STAGE 2 B.O.P. TO STA. 417+00 SCALE: 1"= 50'



 TYPE
 YEAR
 PROJECT NO.
 SHEET NO.

 CONST.
 2017
 NH-16 (54)
 45A2

UNOFFICIAL SET NOT FOR

BIDDING

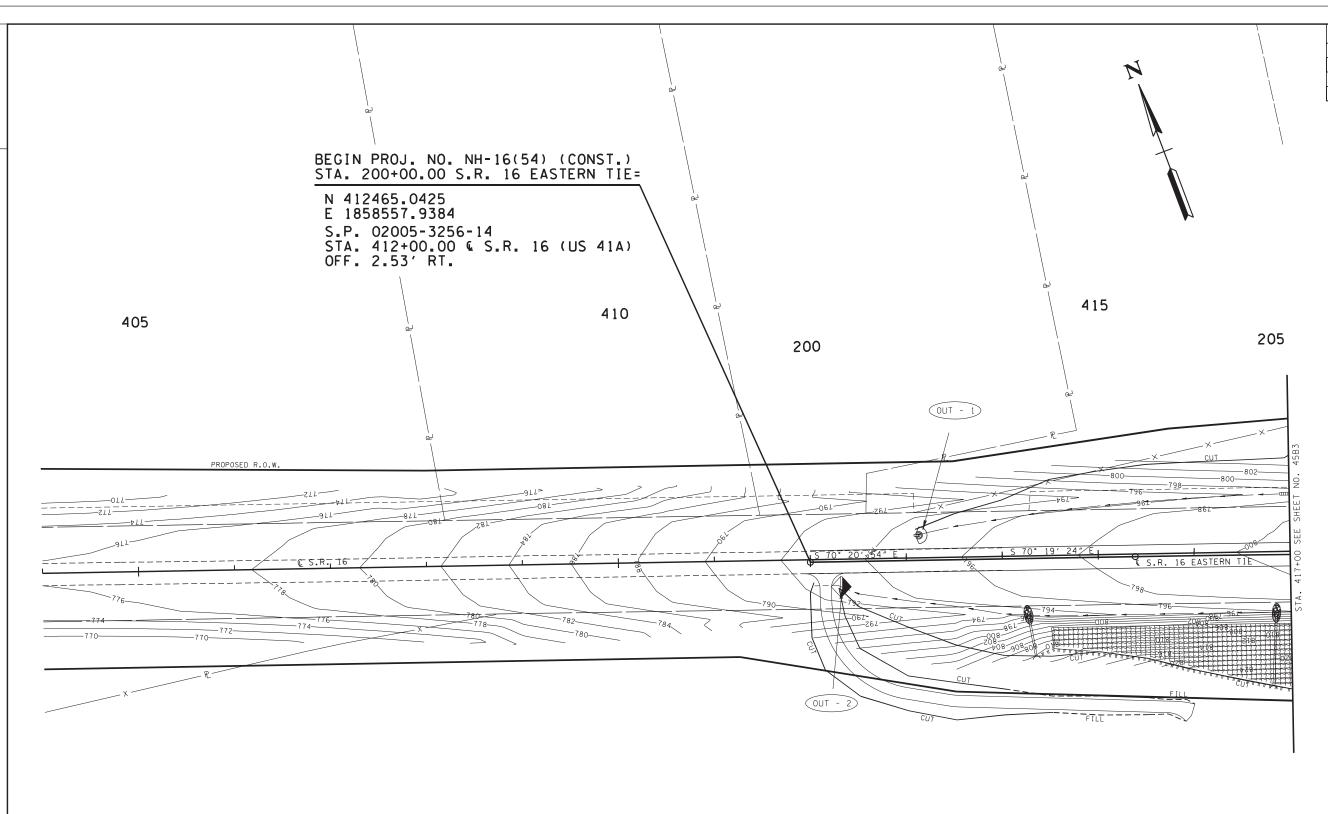


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State of Tennessee Department of Transportation

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STAGE 3
B.O.P. TO STA. 417+00
SCALE: 1"= 50'



TYPE YEAR PROJECT NO. SHEET NO.

CONST. 2017 NH-16 (54) 45A3

UNOFFICIAL SET NOT FOR

BIDDING



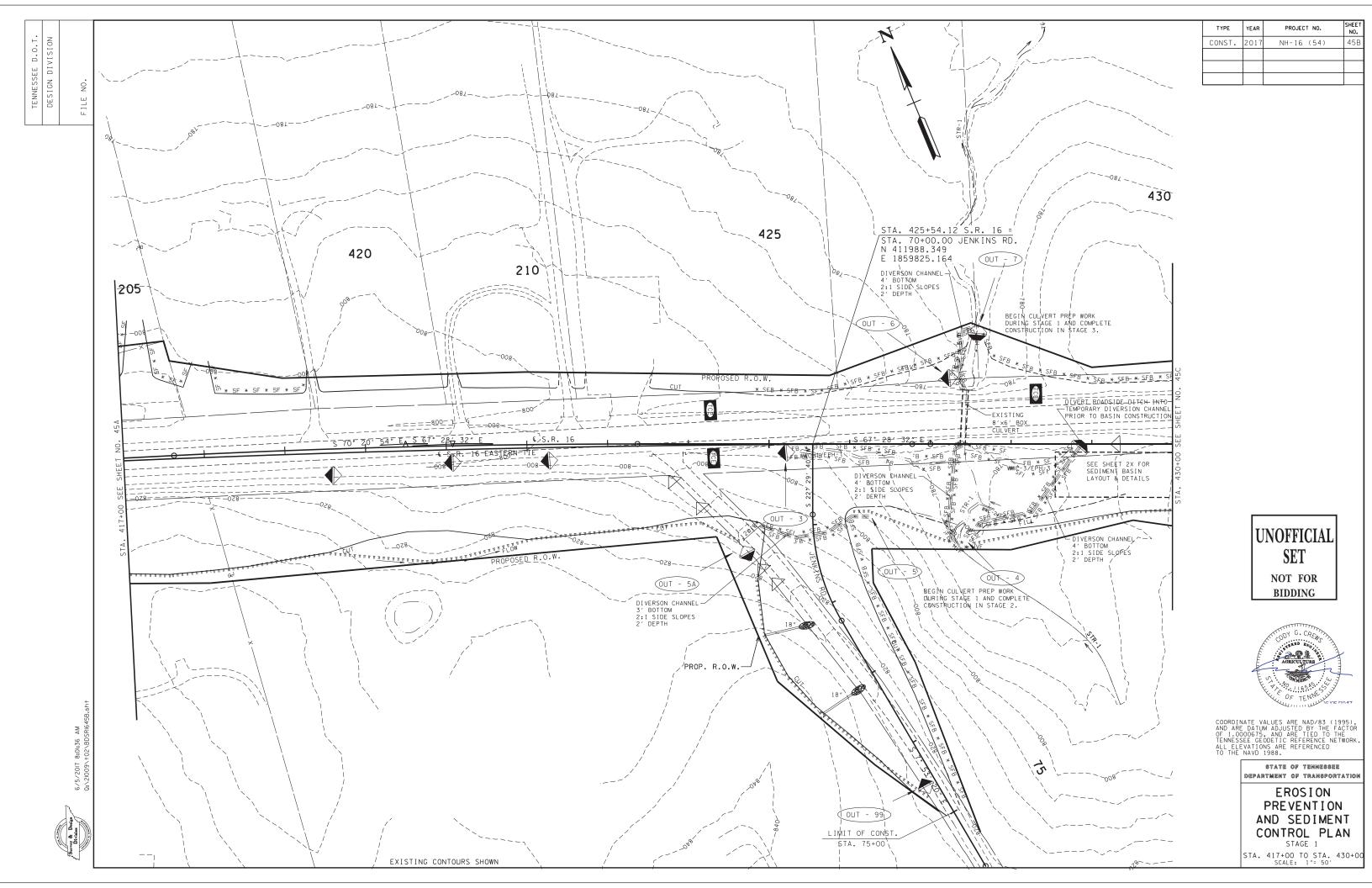
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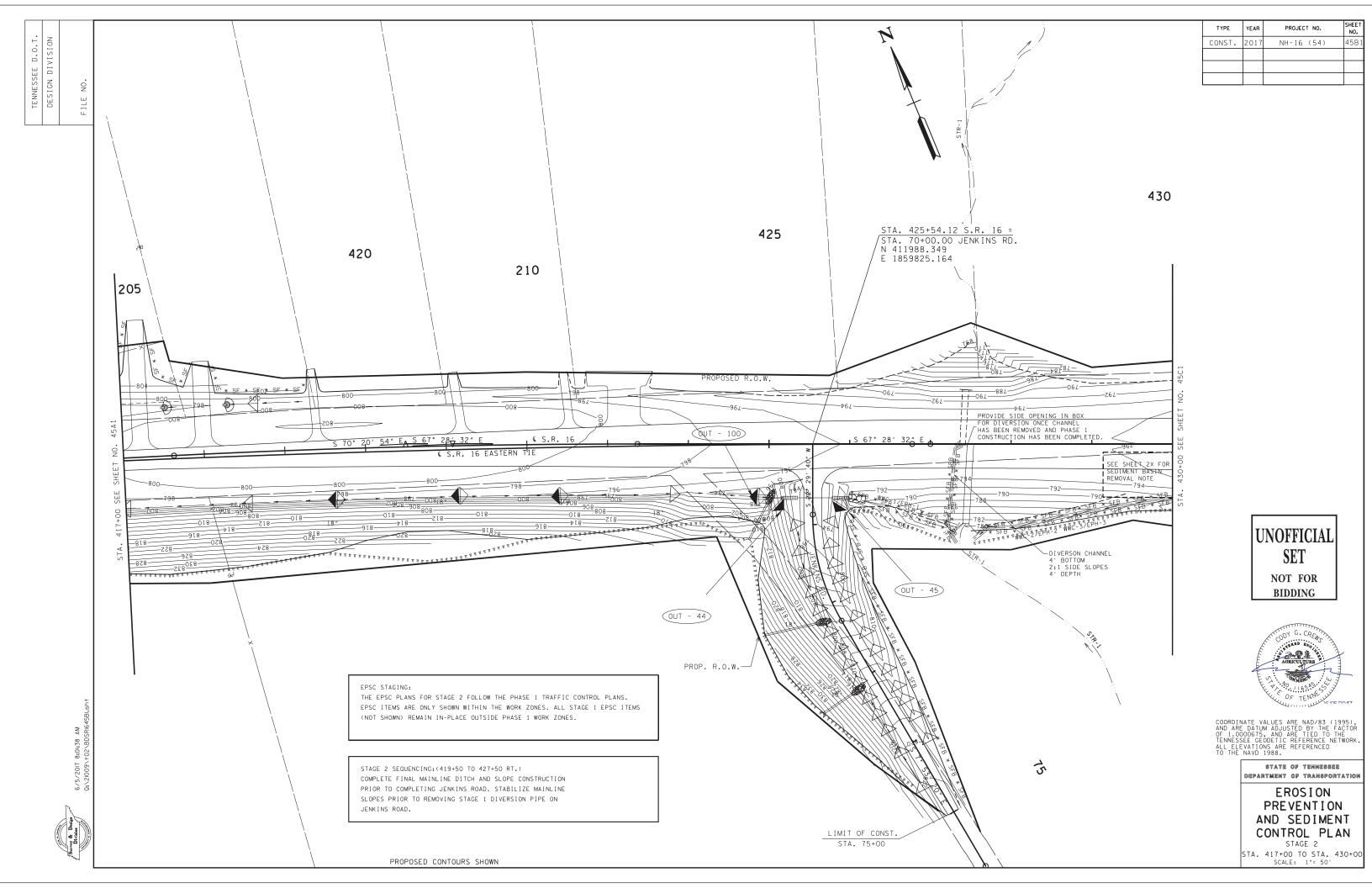
STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

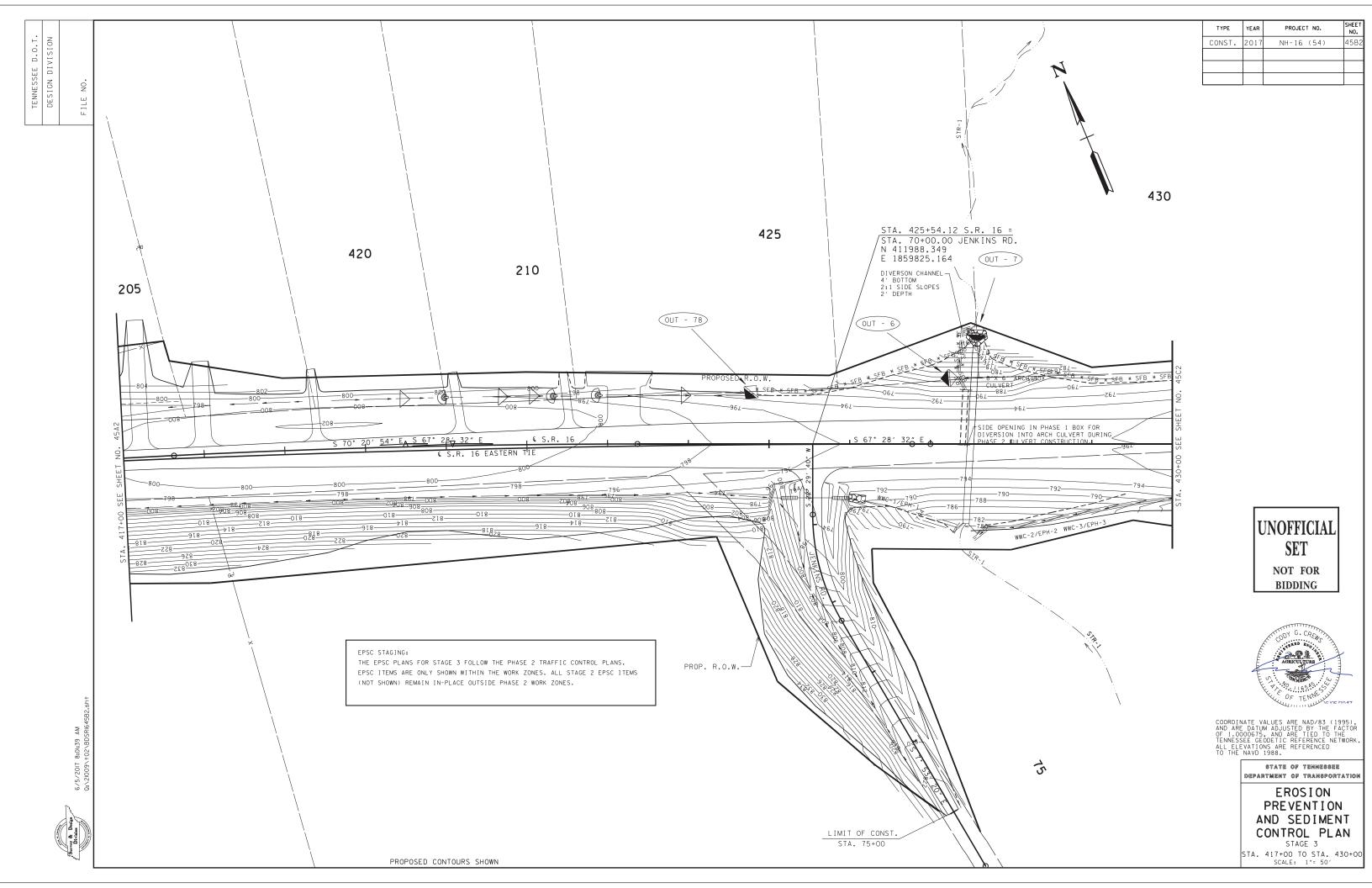
EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

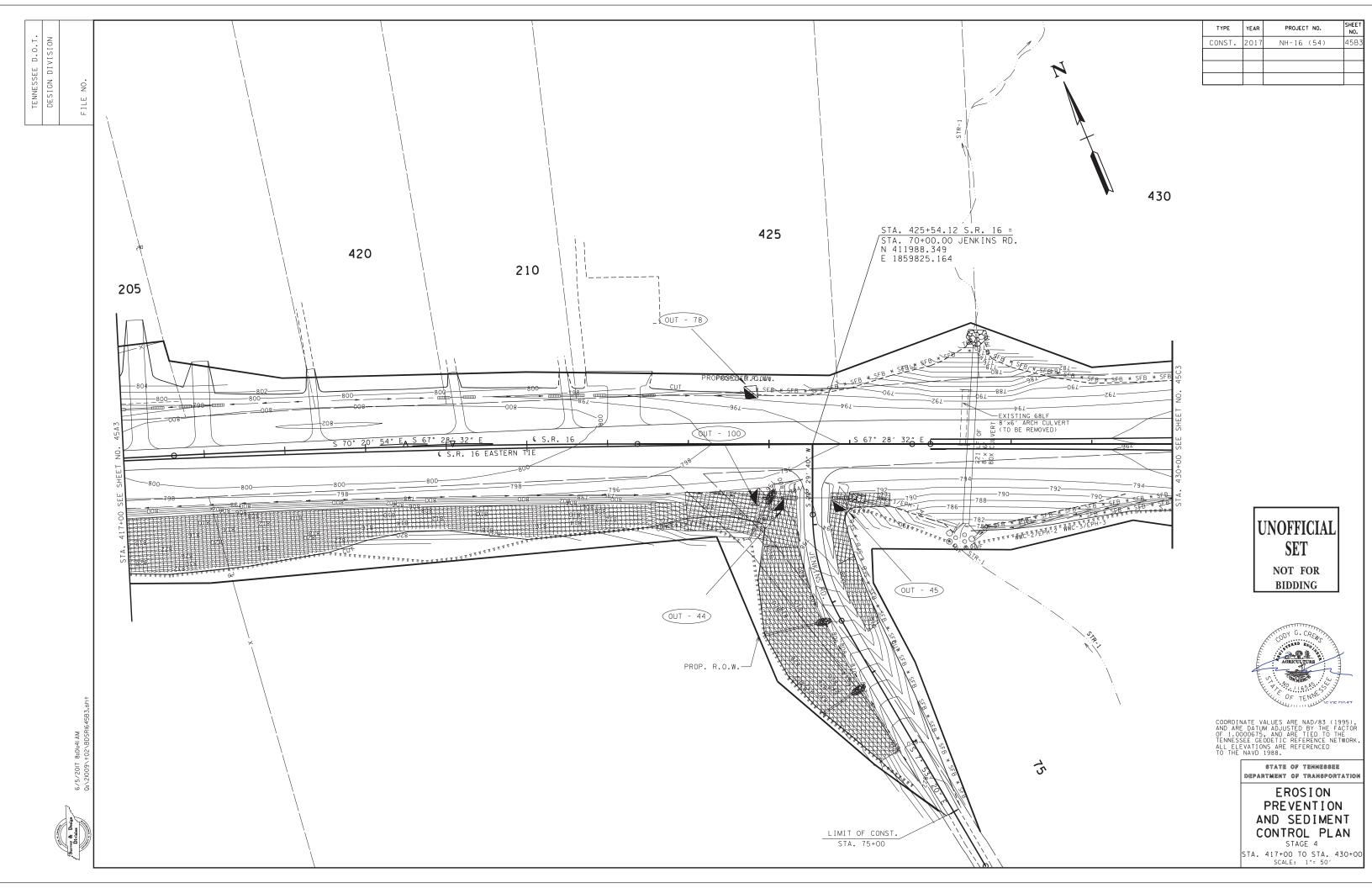
STAGE 4
B.O.P. TO STA. 417+00
SCALE: 1"= 50'

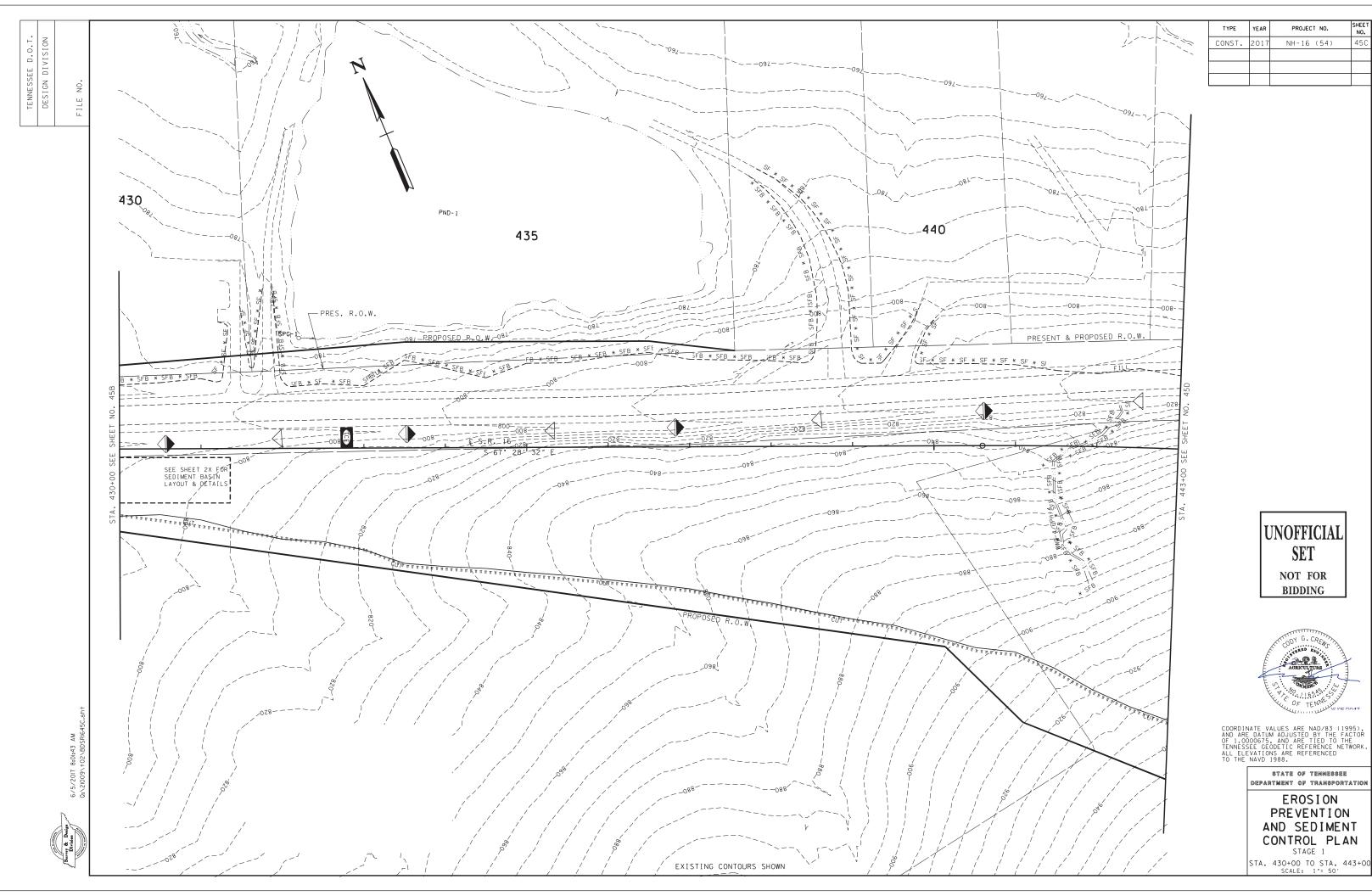


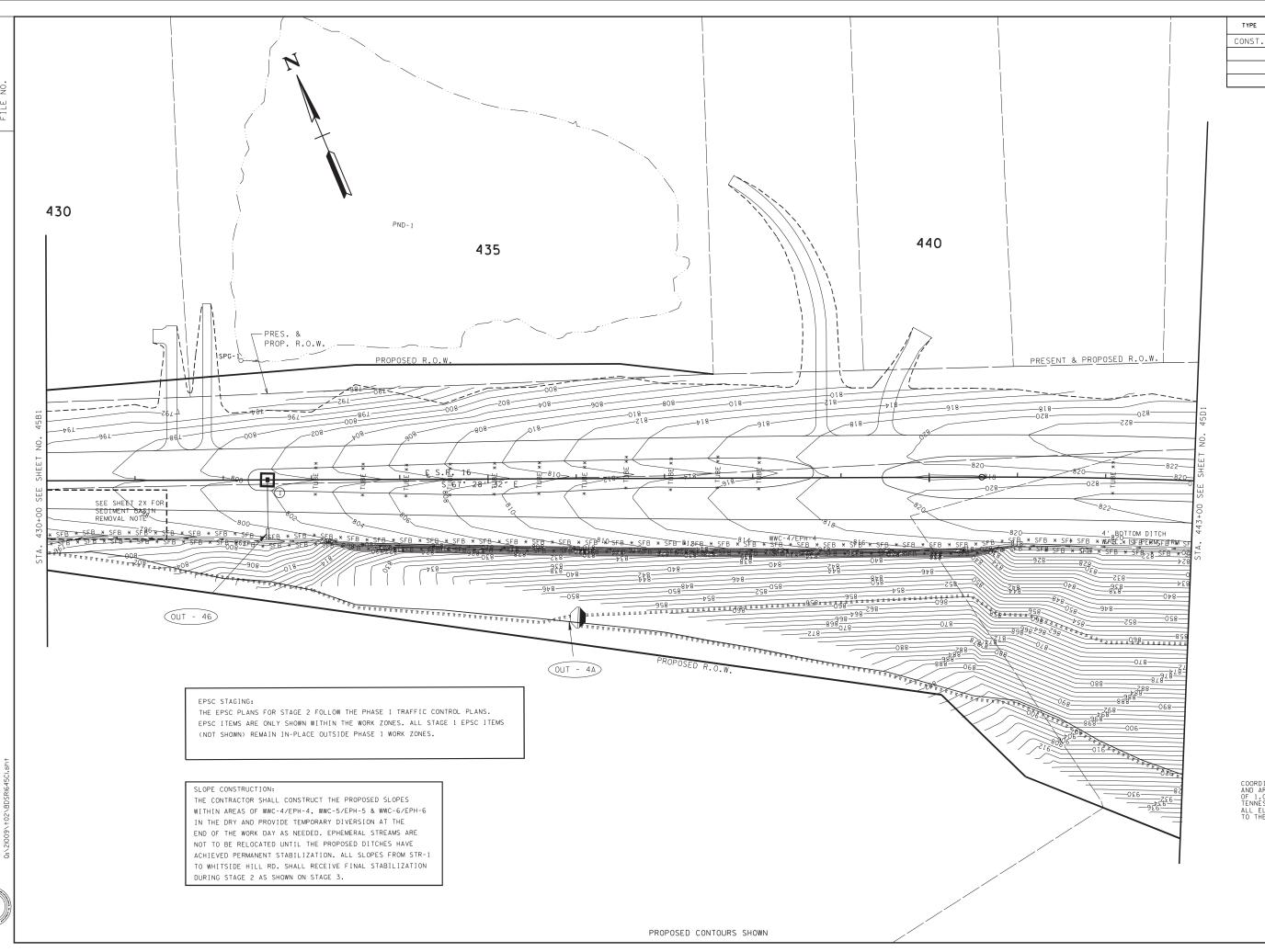












T. 2017 NH-16 (54) 45C1

PROJECT NO.

UNOFFICIAL SET NOT FOR BIDDING

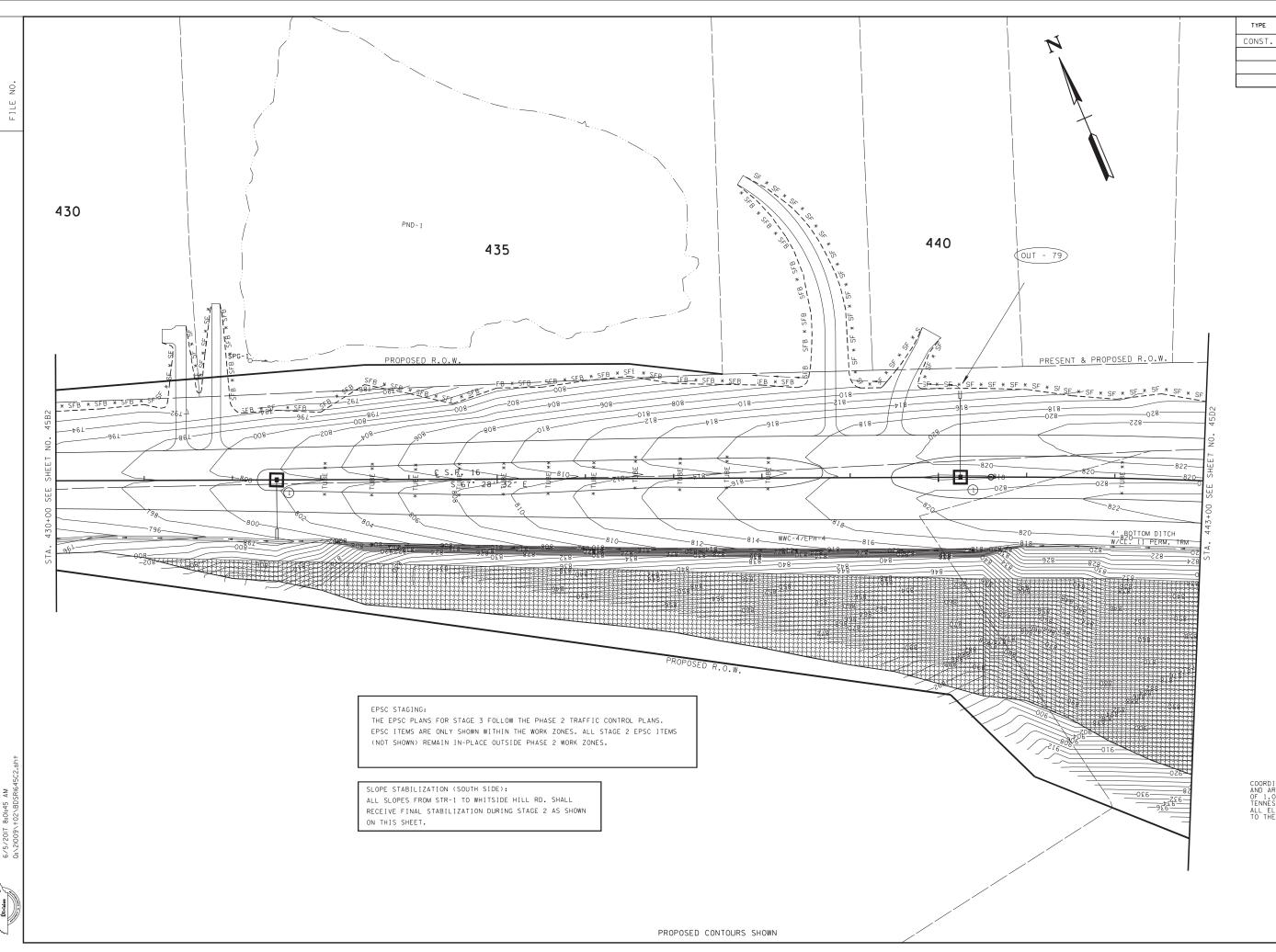


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> STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STAGE 2 STA. 430+00 TO STA. 443+00 SCALE: 1"= 50'



 YPE
 YEAR
 PROJECT NO.
 SHEET NO.

 NST.
 2017
 NH-16 (54)
 45C2

UNOFFICIAL SET
NOT FOR

BIDDING

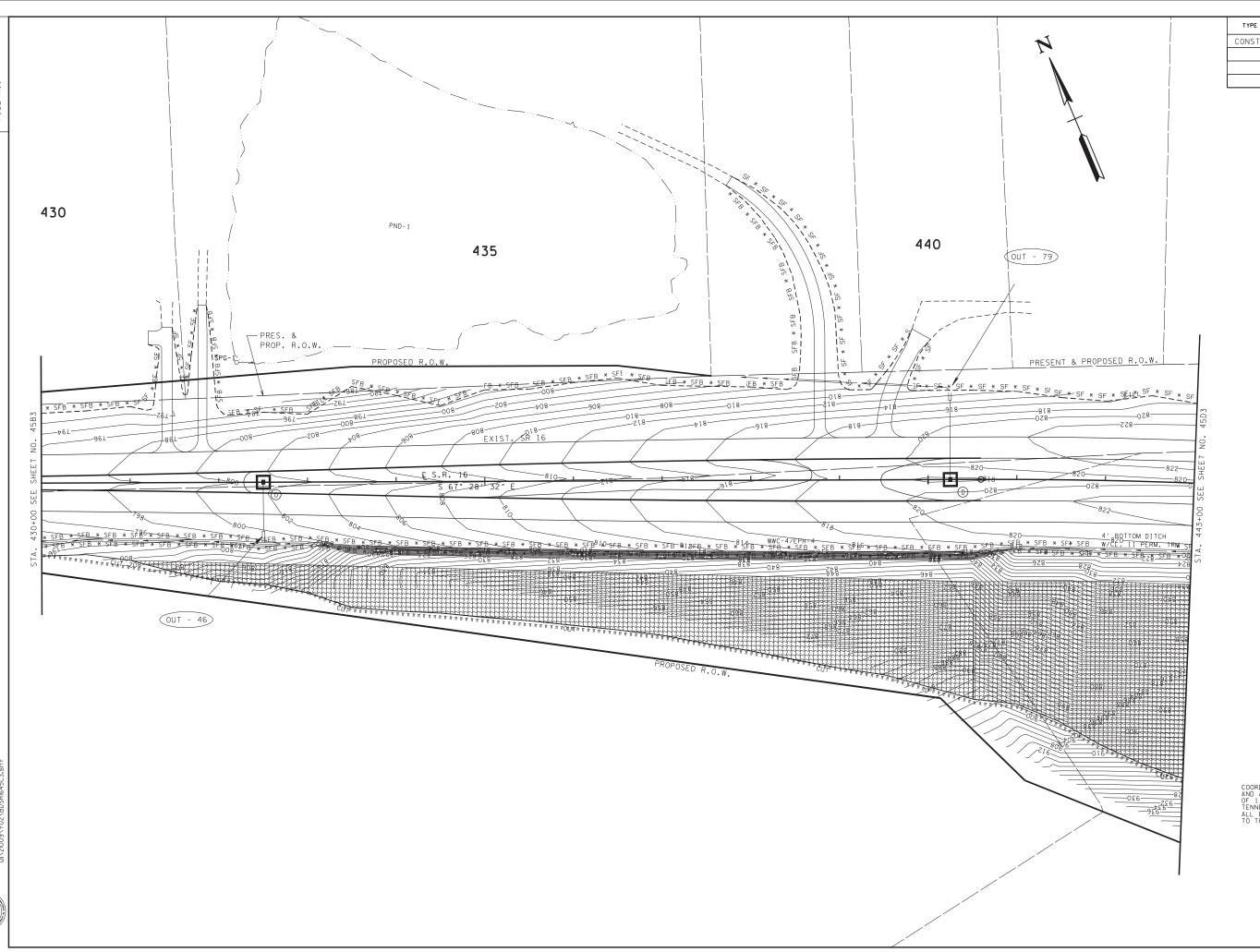


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> STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STAGE 3 STA. 430+00 TO STA. 443+00 SCALE: 1"= 50'



TYPE YEAR PROJECT NO. SHEET NO.

CONST. 2017 NH-16 (54) 45C3

UNOFFICIAL SET NOT FOR

BIDDING

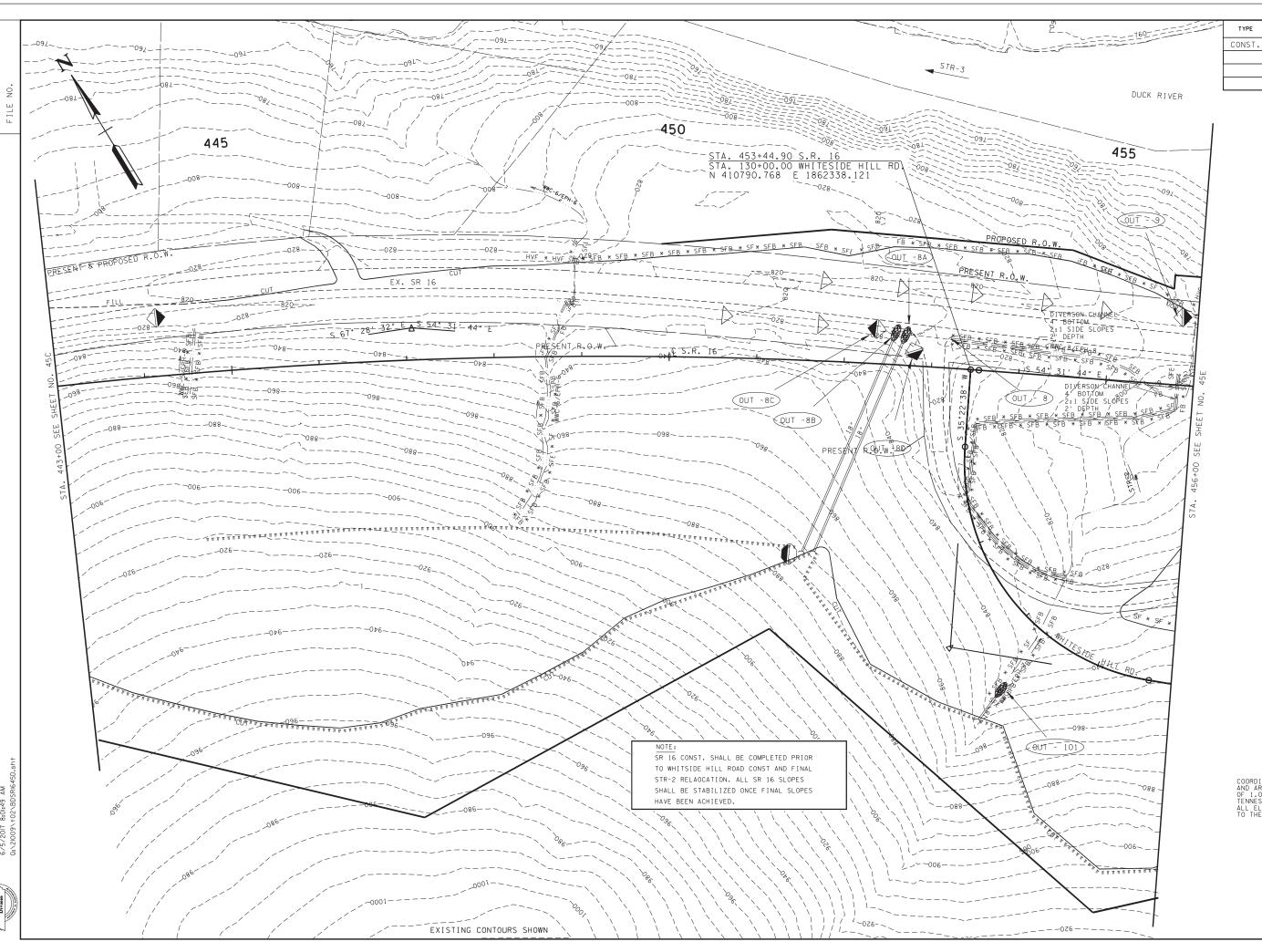


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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STAGE 4 STA. 430+00 TO STA. 443+00 SCALE: 1"= 50'



 TYPE
 YEAR
 PROJECT NO.
 SHEET NO.

 CONST.
 2017
 NH-16 (54)
 45D

UNOFFICIAL SET not for bidding

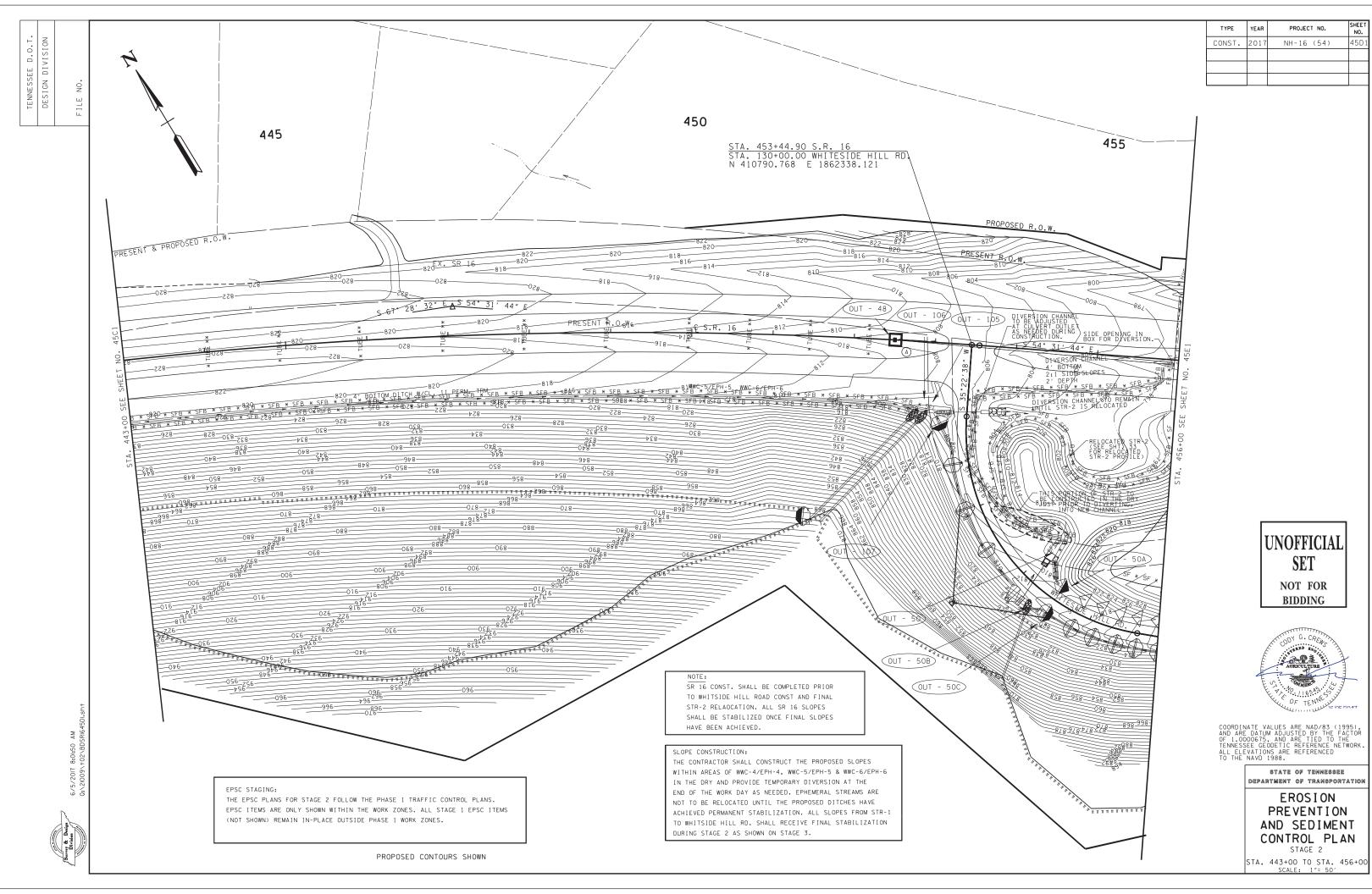


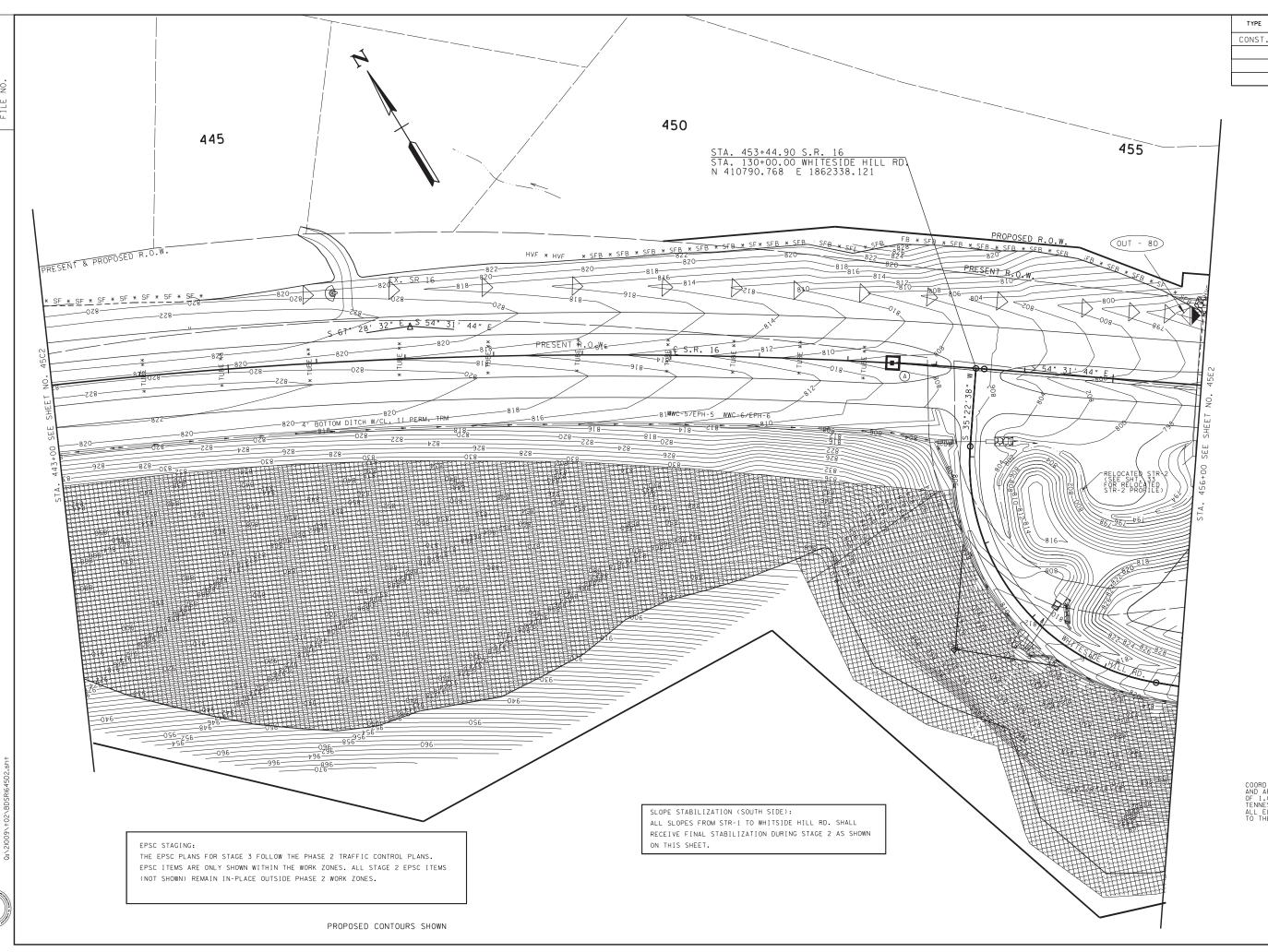
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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STAGE 1 STA. 443+00 TO STA. 456+00 SCALE: 1"= 50'





E YEAR PROJECT NO. SHEET NO.

ST. 2017 NH-16 (54) 45D2

UNOFFICIAL SET NOT FOR BIDDING

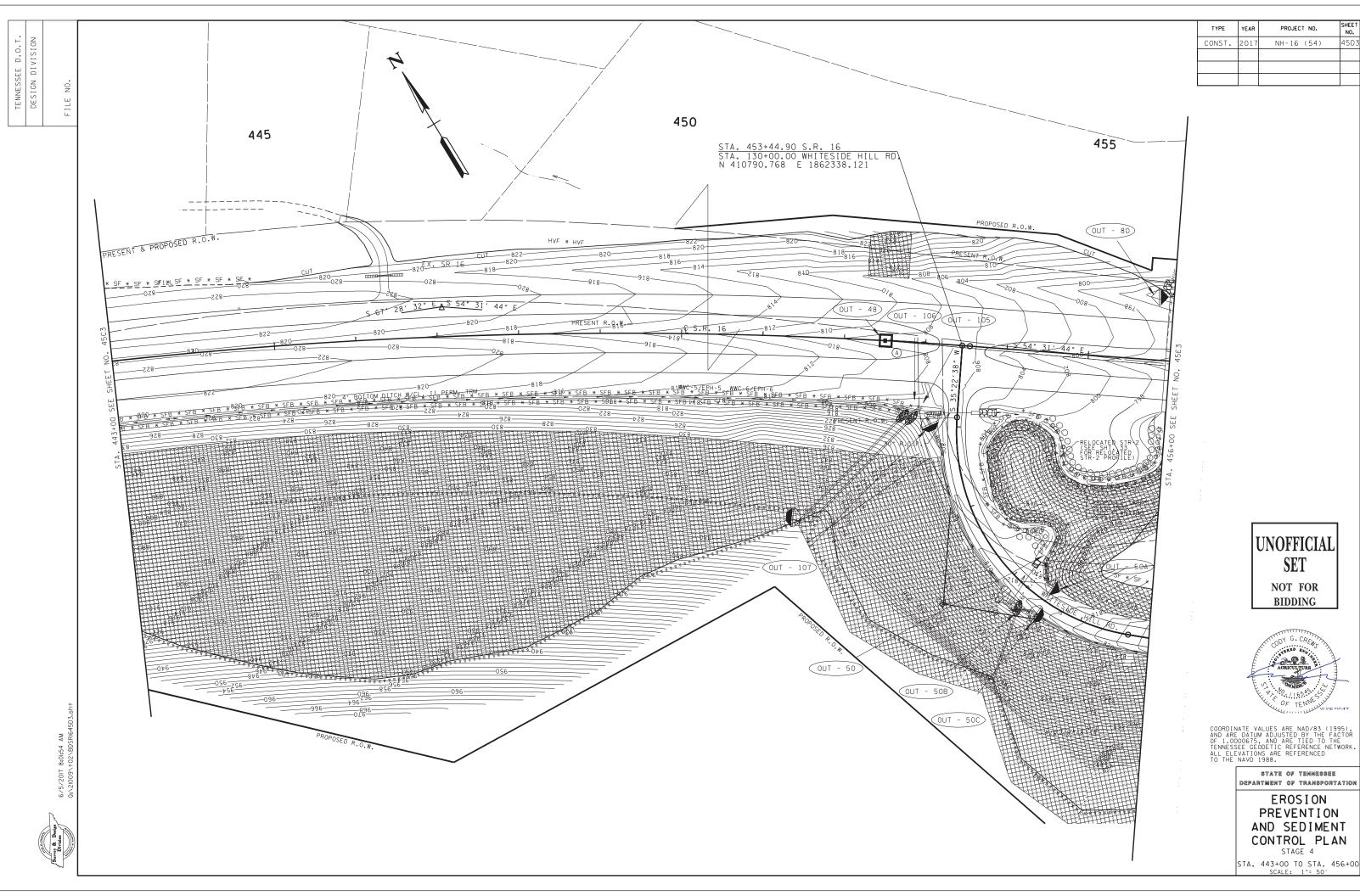


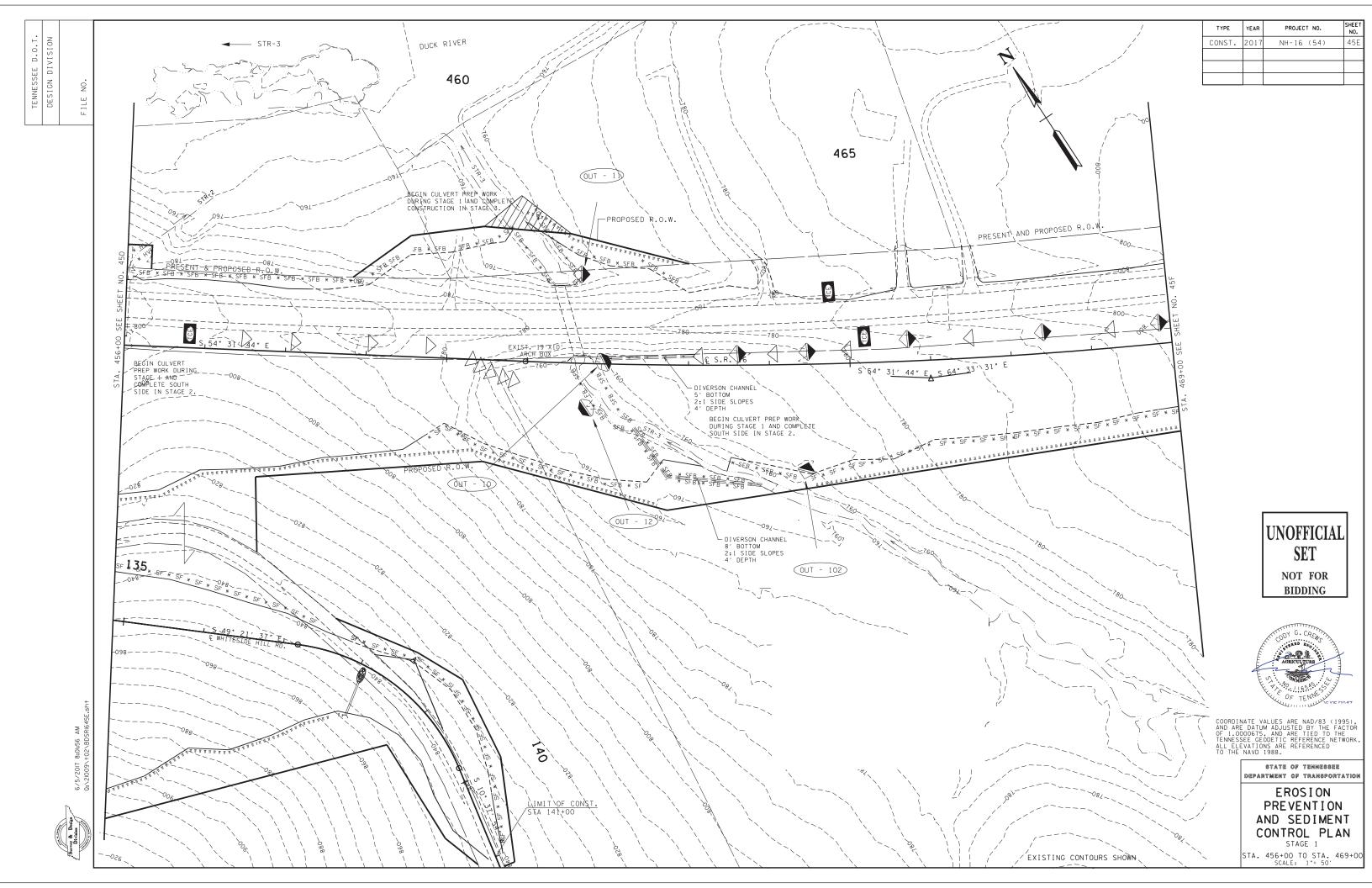
COORDINATE VALUES ARE NAD/83 (1995), AND ARE DATUM ADJUSTED BY THE FACTOR OF 1.0000675, AND ARE TIED TO THE TENNESSEE GEODETIC REFERENCE NETWORK. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

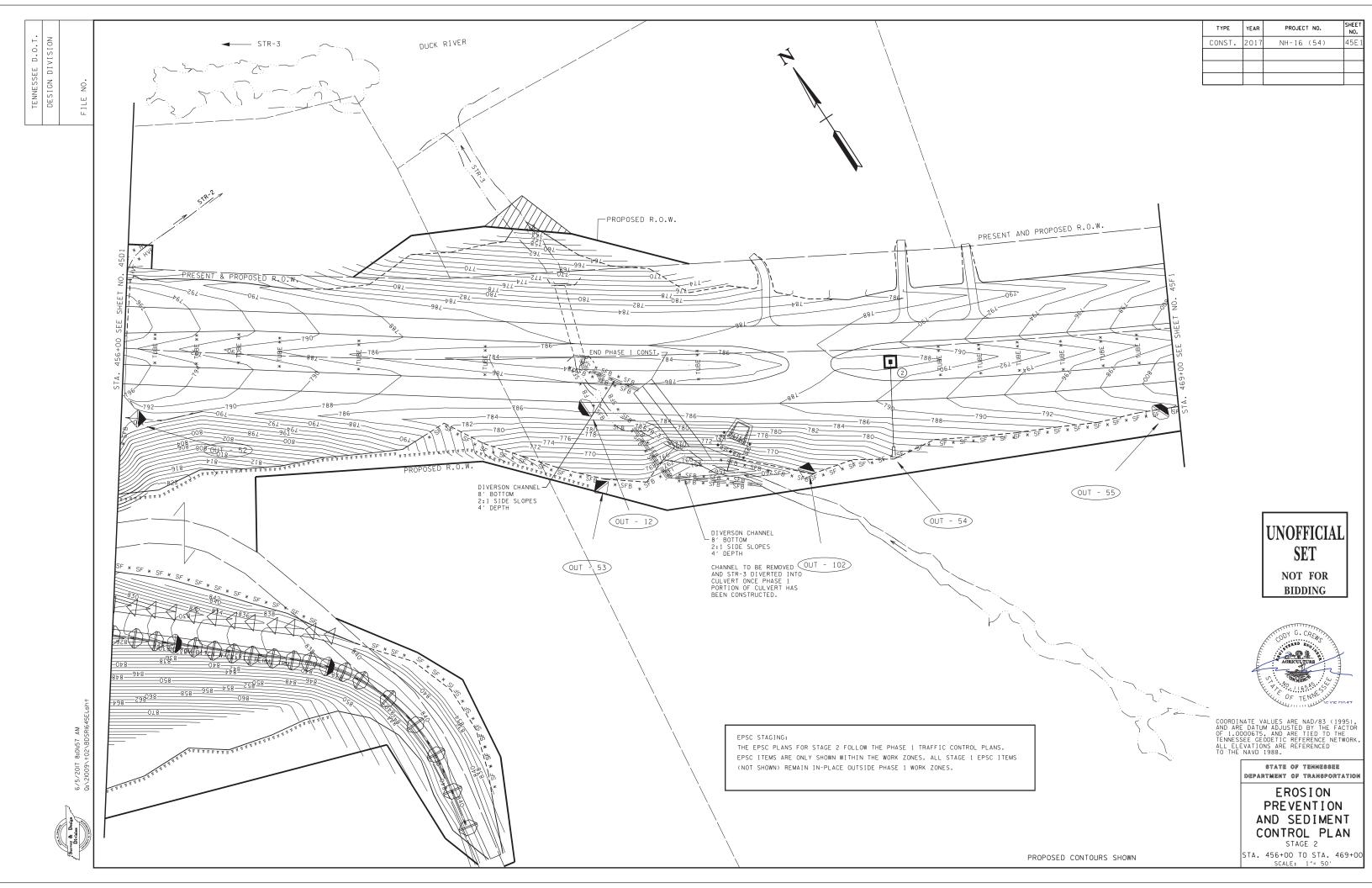
> STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

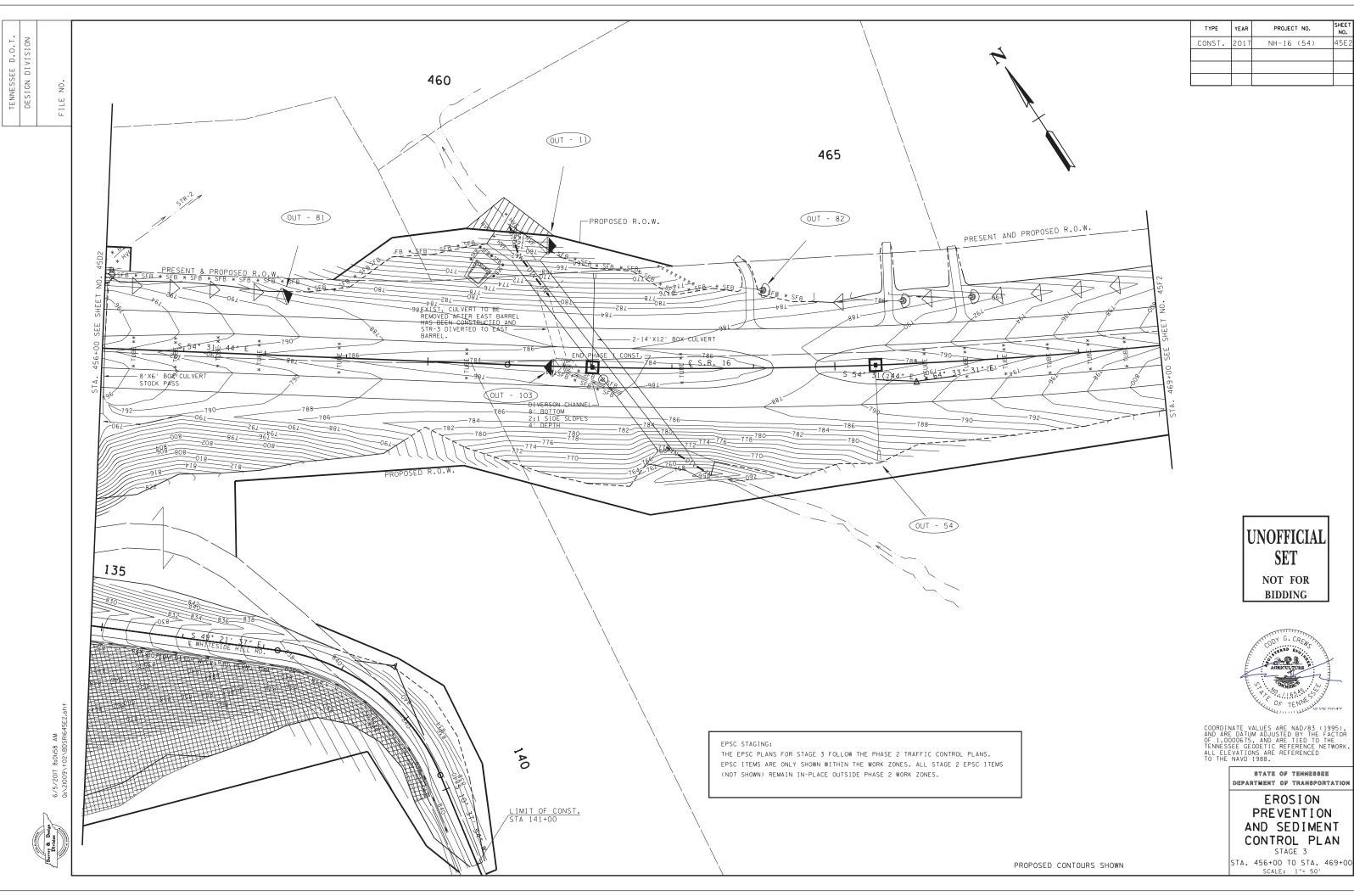
EROSION PREVENTION AND SEDIMENT CONTROL PLAN

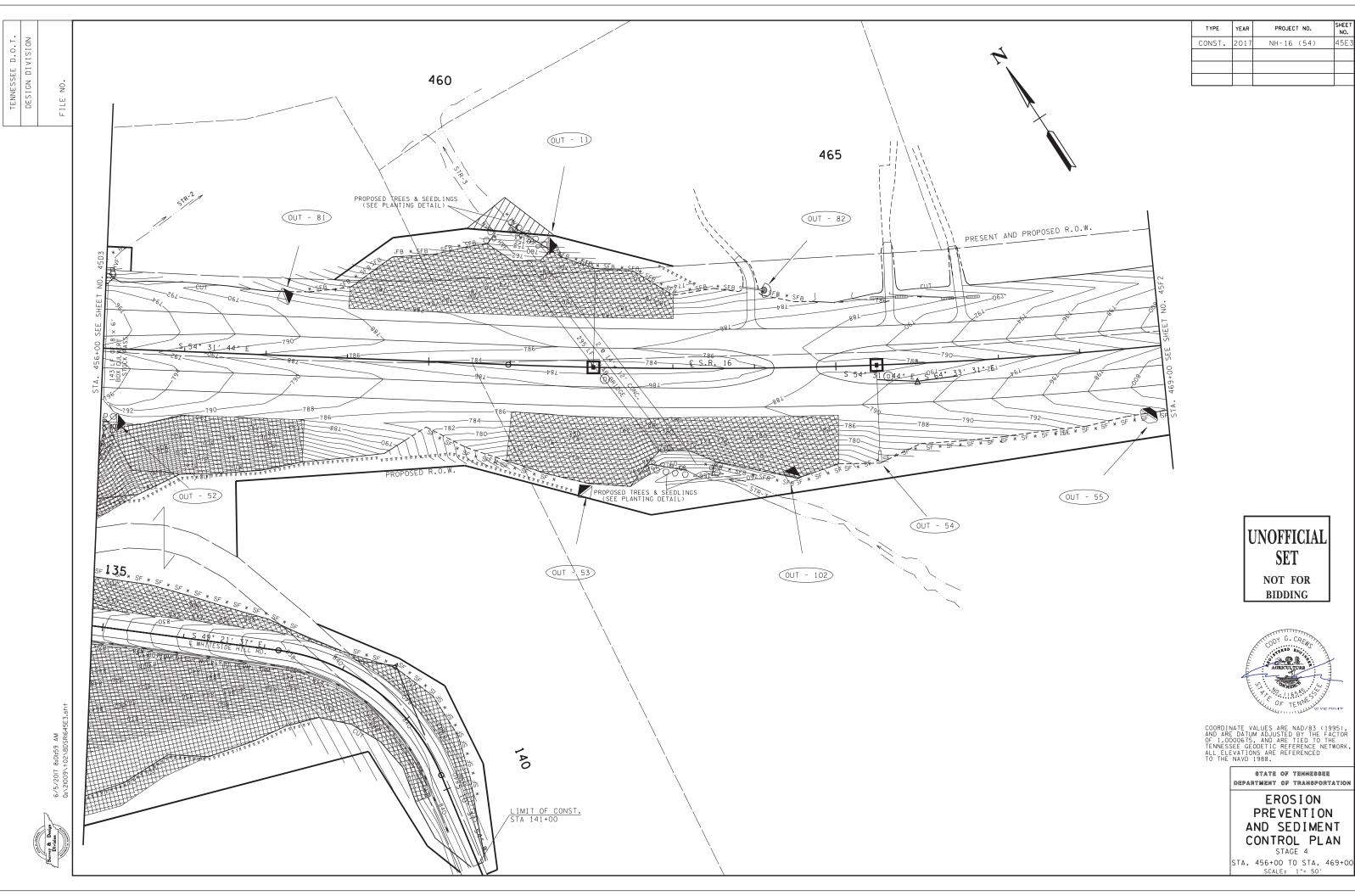
STAGE 3 STA. 443+00 TO STA. 456+00 SCALE: 1″= 50′

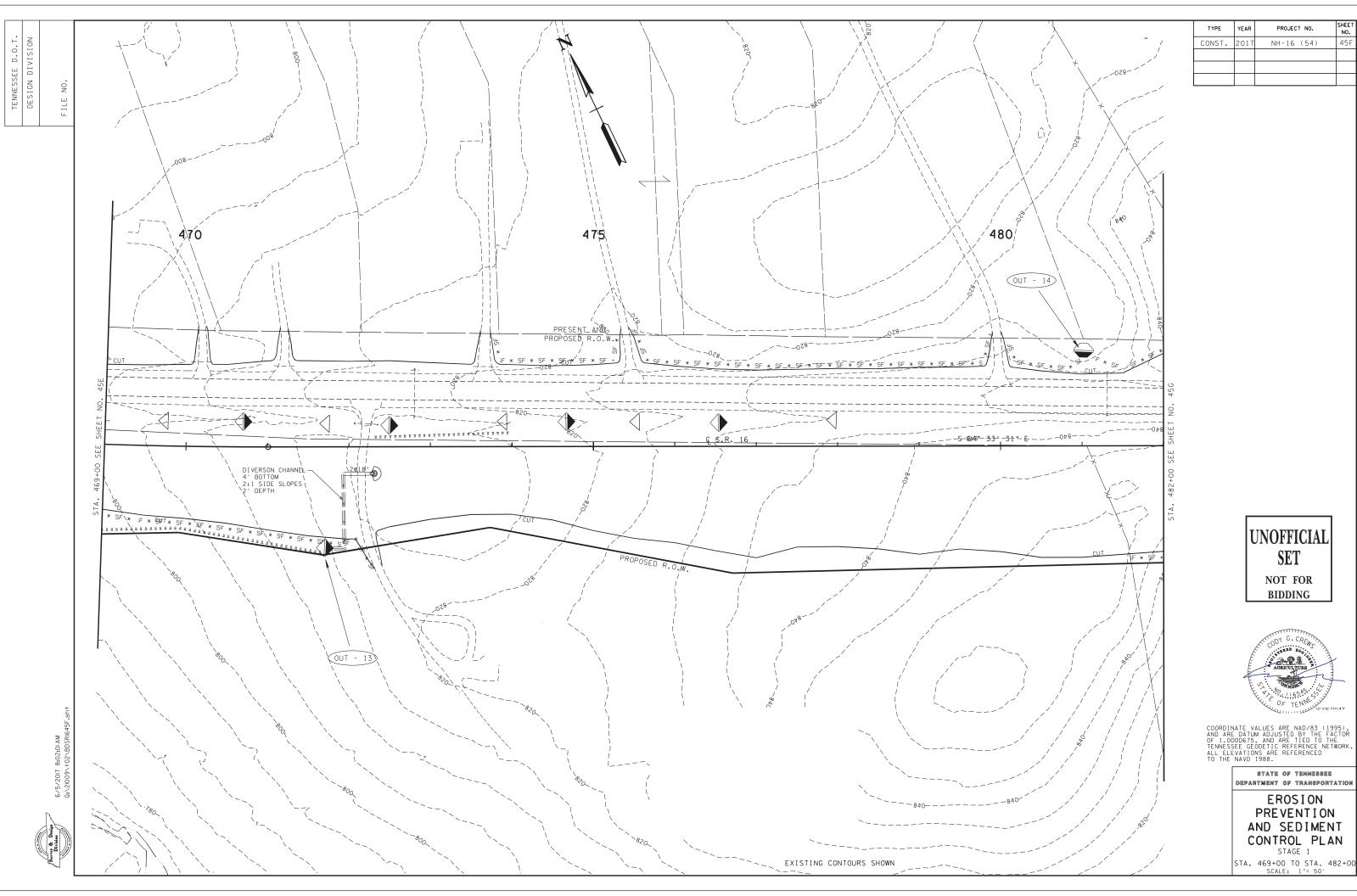


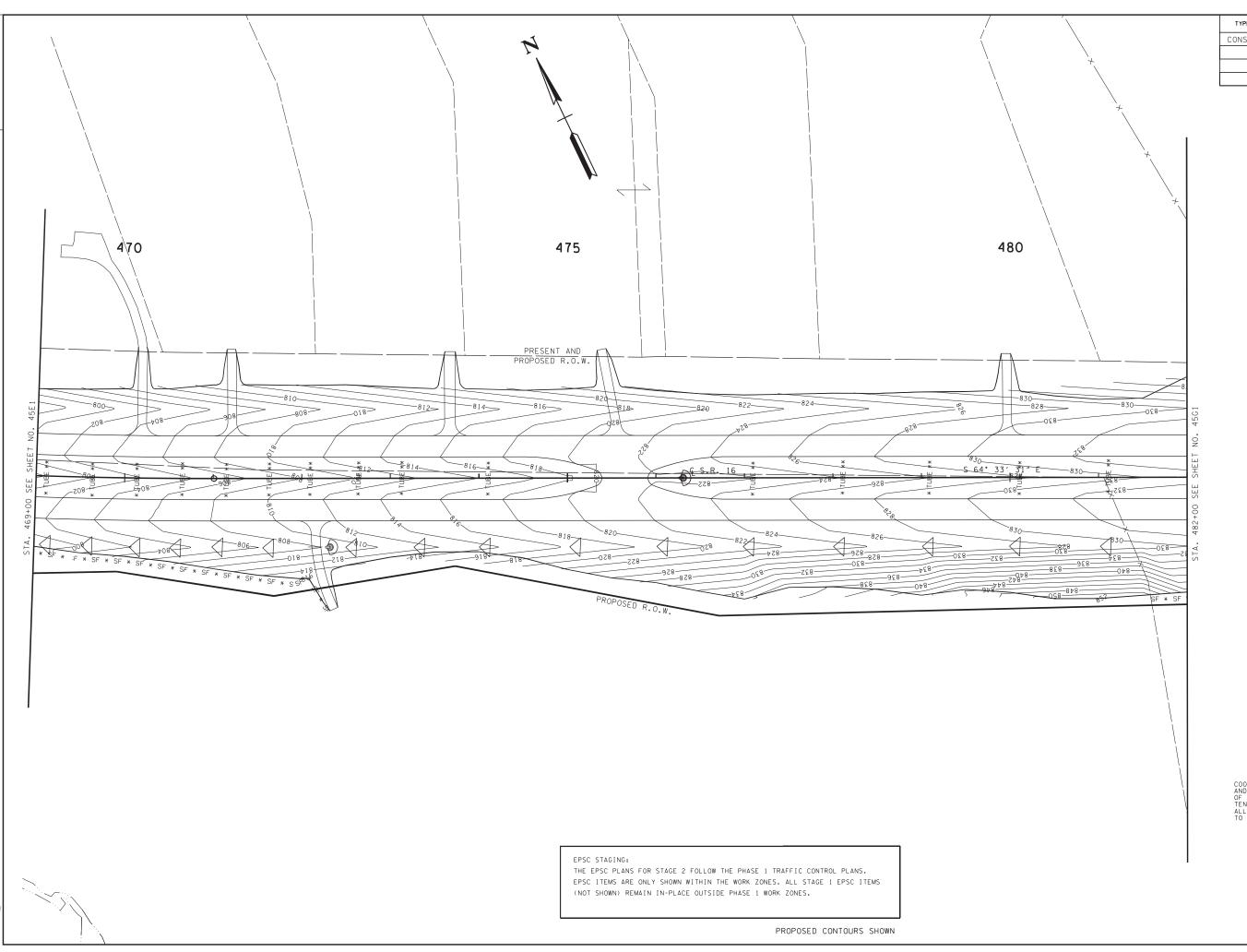












 TYPE
 YEAR
 PROJECT NO.
 SHEET NO.

 CONST.
 2017
 NH-16 (54)
 45F1

UNOFFICIAL SET NOT FOR

BIDDING

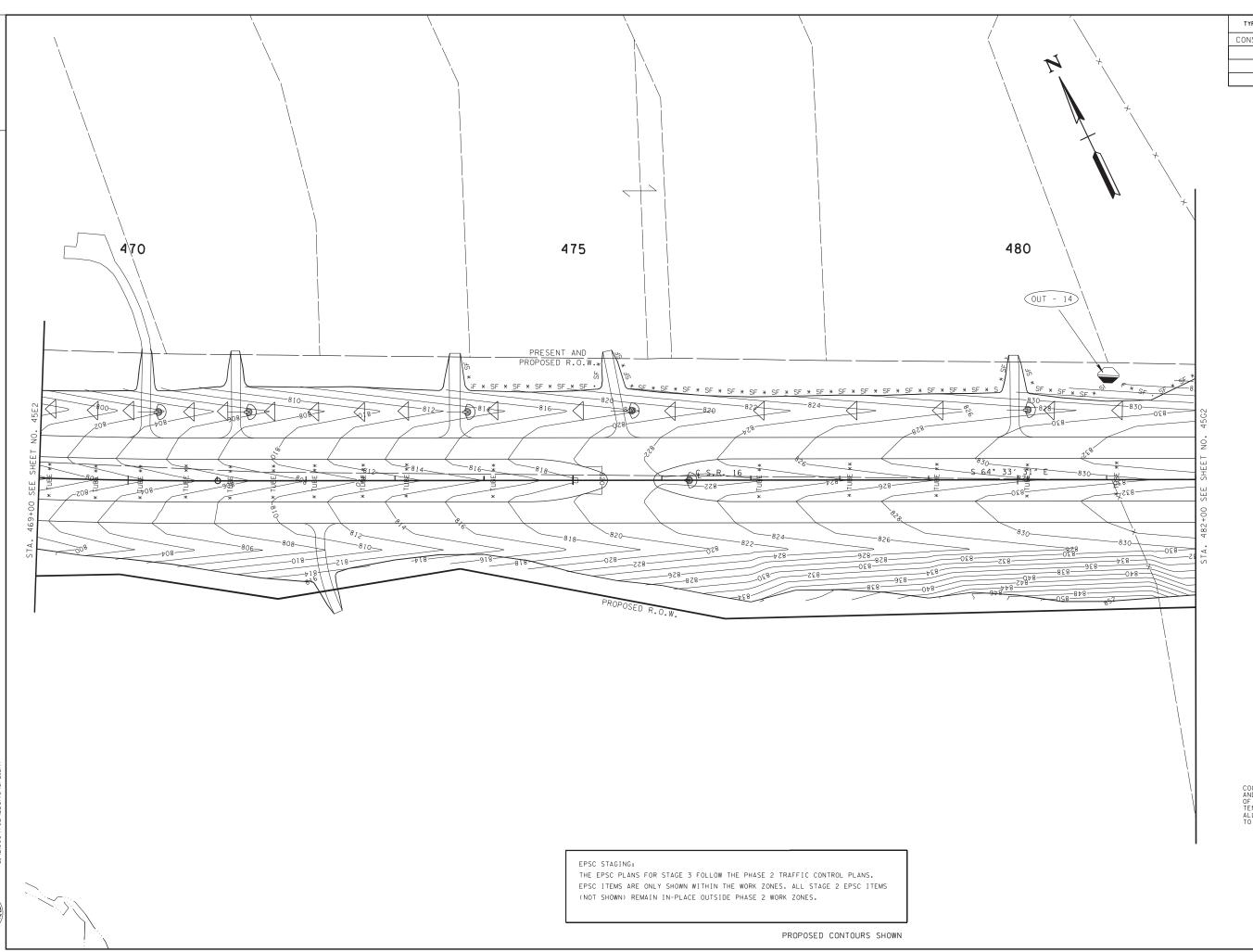


COORDINATE VALUES ARE NAD/83 (1995), AND ARE DATUM ADJUSTED BY THE FACTOR OF 1.0000675, AND ARE TIED TO THE TENNESSEE GEODETIC REFERENCE NETWORK. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

> STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STAGE 2 STA. 469+00 TO STA. 482+00 SCALE: 1"= 50'



 TYPE
 YEAR
 PROJECT NO.
 SHEET NO.

 CONST.
 2017
 NH-16 (54)
 45F2

UNOFFICIAL SET NOT FOR

BIDDING

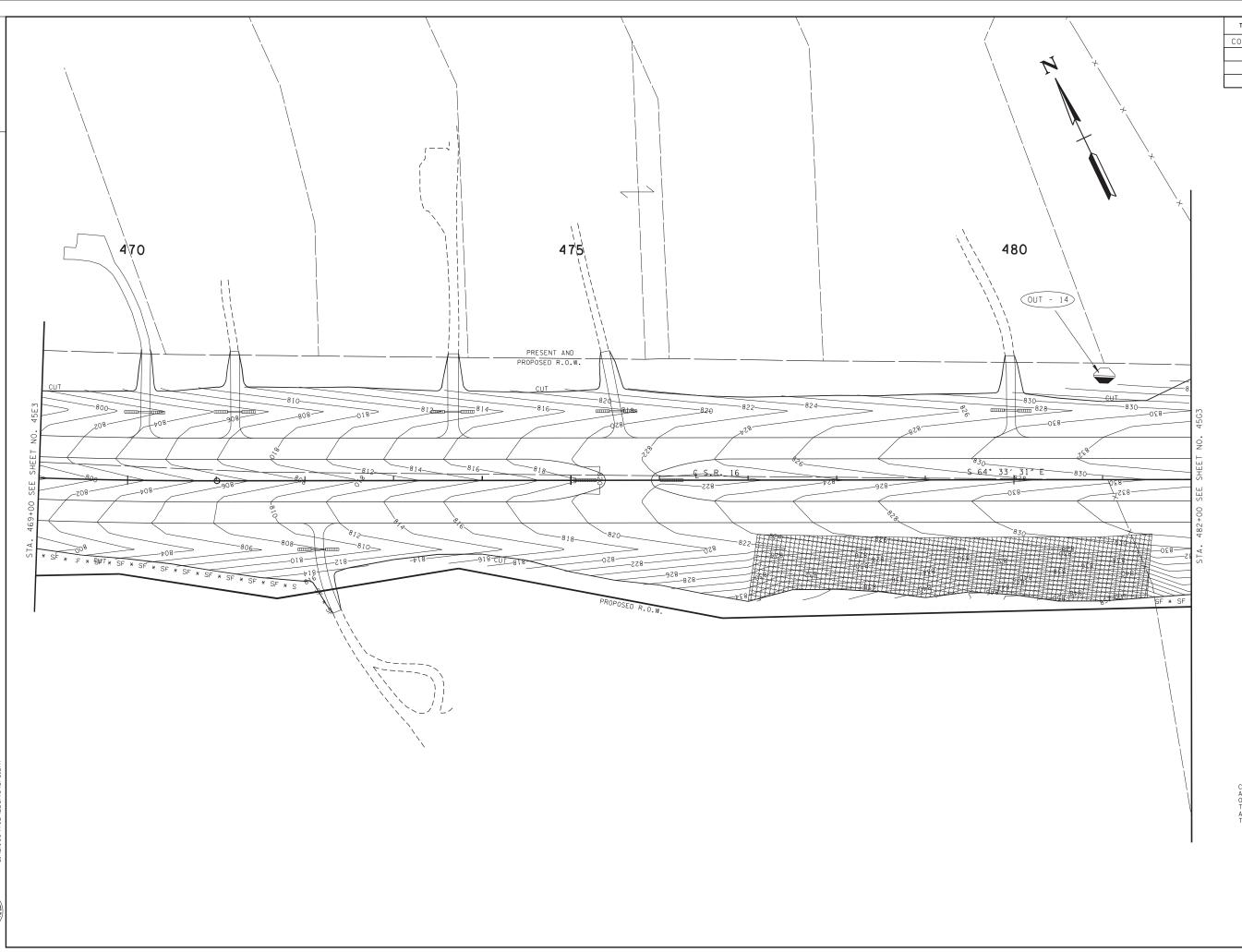


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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN
STAGE 3

STA. 469+00 TO STA. 482+00 SCALE: 1"= 50'



TYPE YEAR PROJECT NO. SHEET NO.

CONST. 2017 NH-16 (54) 45F3

UNOFFICIAL SET NOT FOR

BIDDING

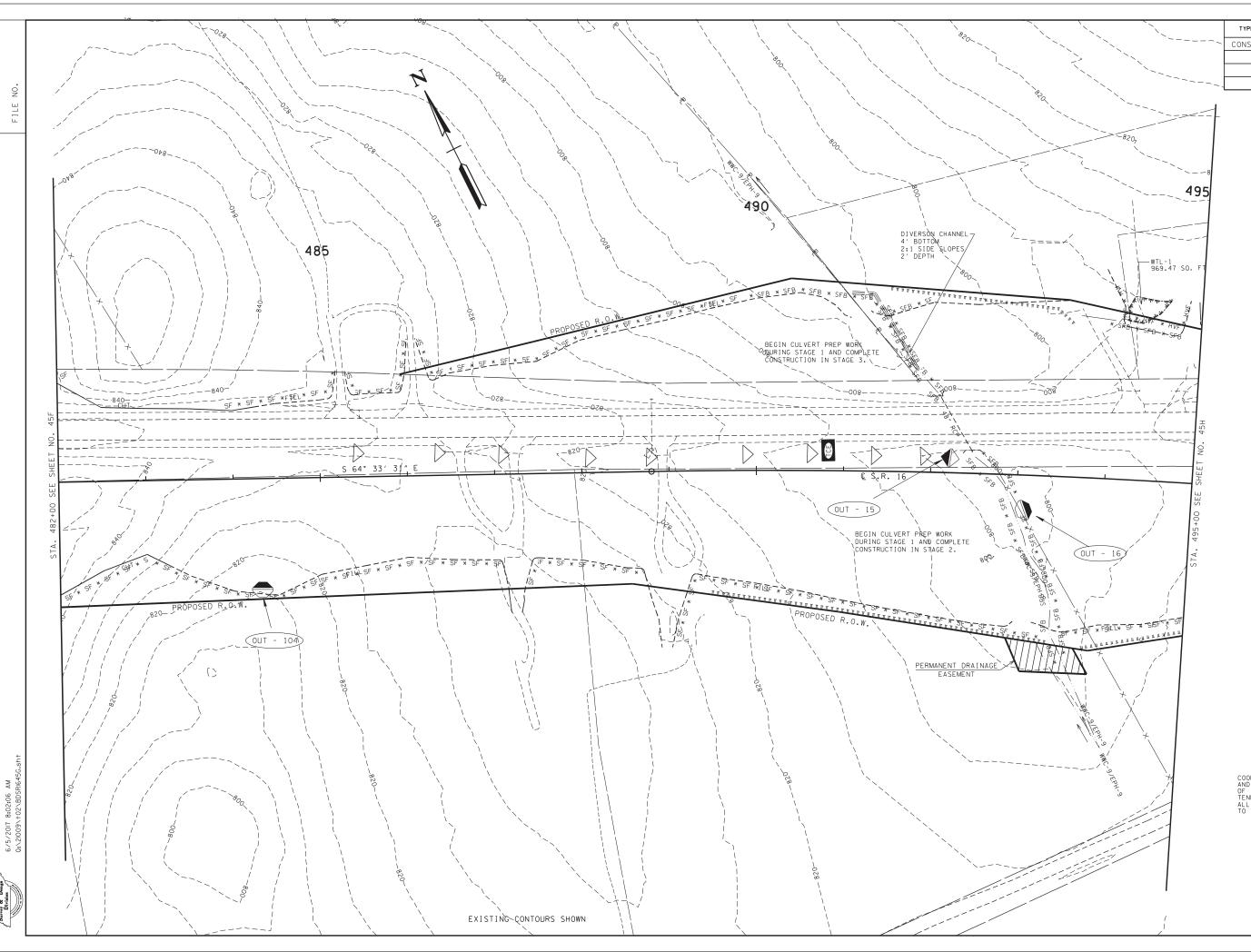


COORDINATE VALUES ARE NAD/83 (1995), AND ARE DATUM ADJUSTED BY THE FACTOR OF 1.0000675, AND ARE TIED TO THE TENNESSEE GEODETIC REFERENCE NETWORK, ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STAGE 4 STA. 469+00 TO STA. 482+00 SCALE: 1"= 50'



PROJECT NO. CONST. NH-16 (54)

> UNOFFICIAL SET NOT FOR **BIDDING**

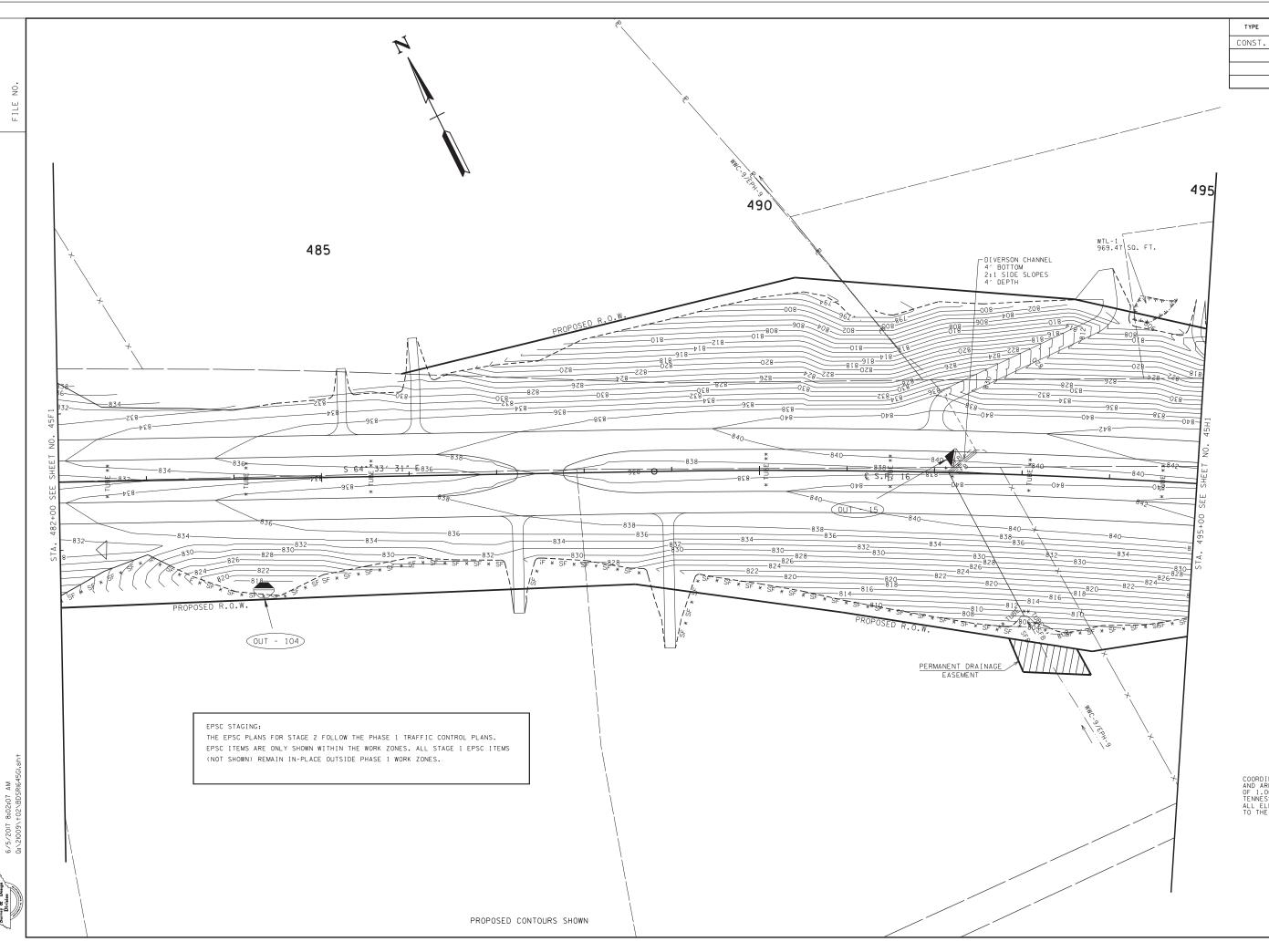


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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN STAGE 1

STA. 482+00 TO STA. 495+00



 YPE
 YEAR
 PROJECT NO.
 SHEET NO.

 NST.
 2017
 NH-16 (54)
 45G1

UNOFFICIAL SET NOT FOR BIDDING

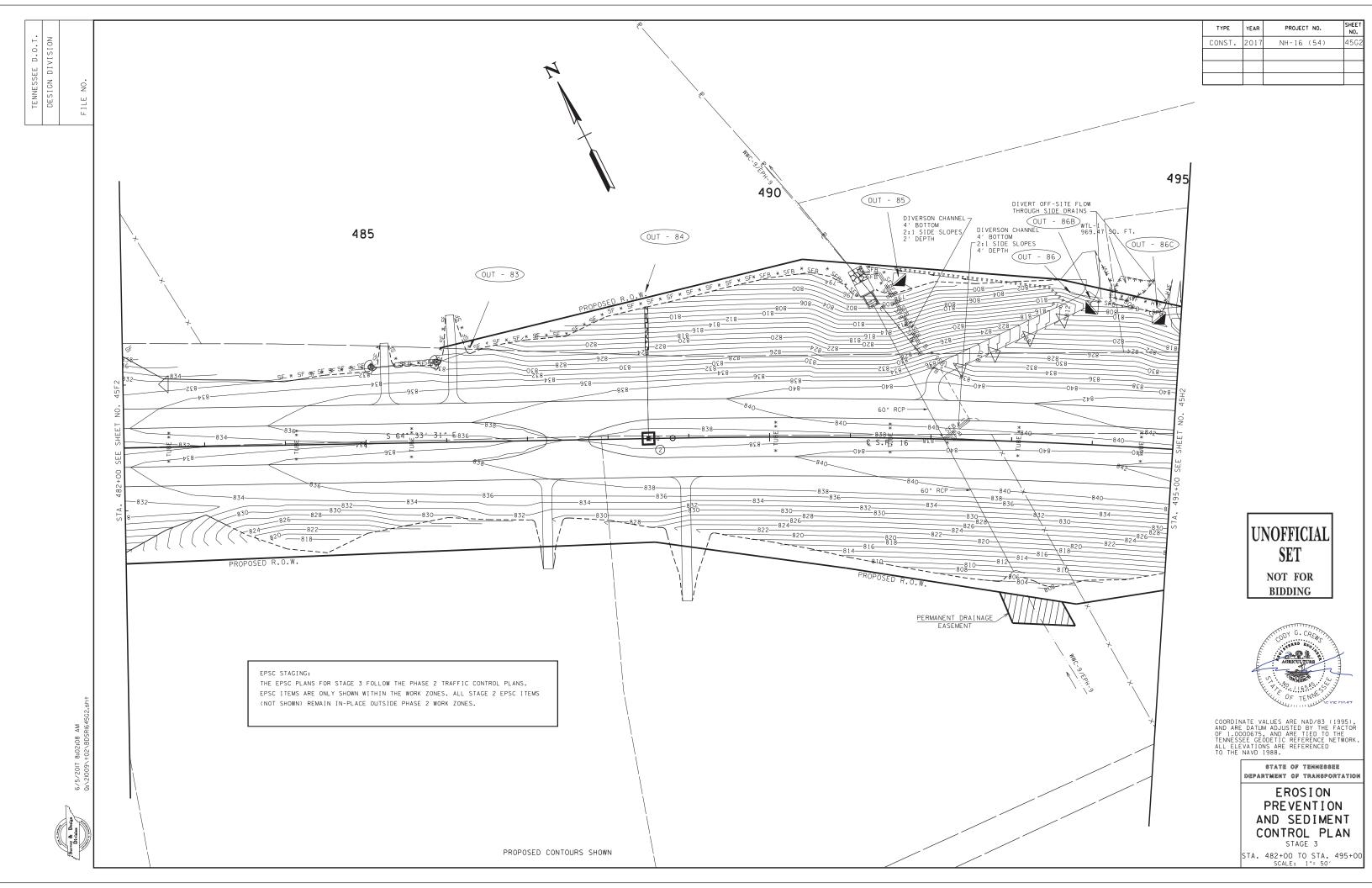


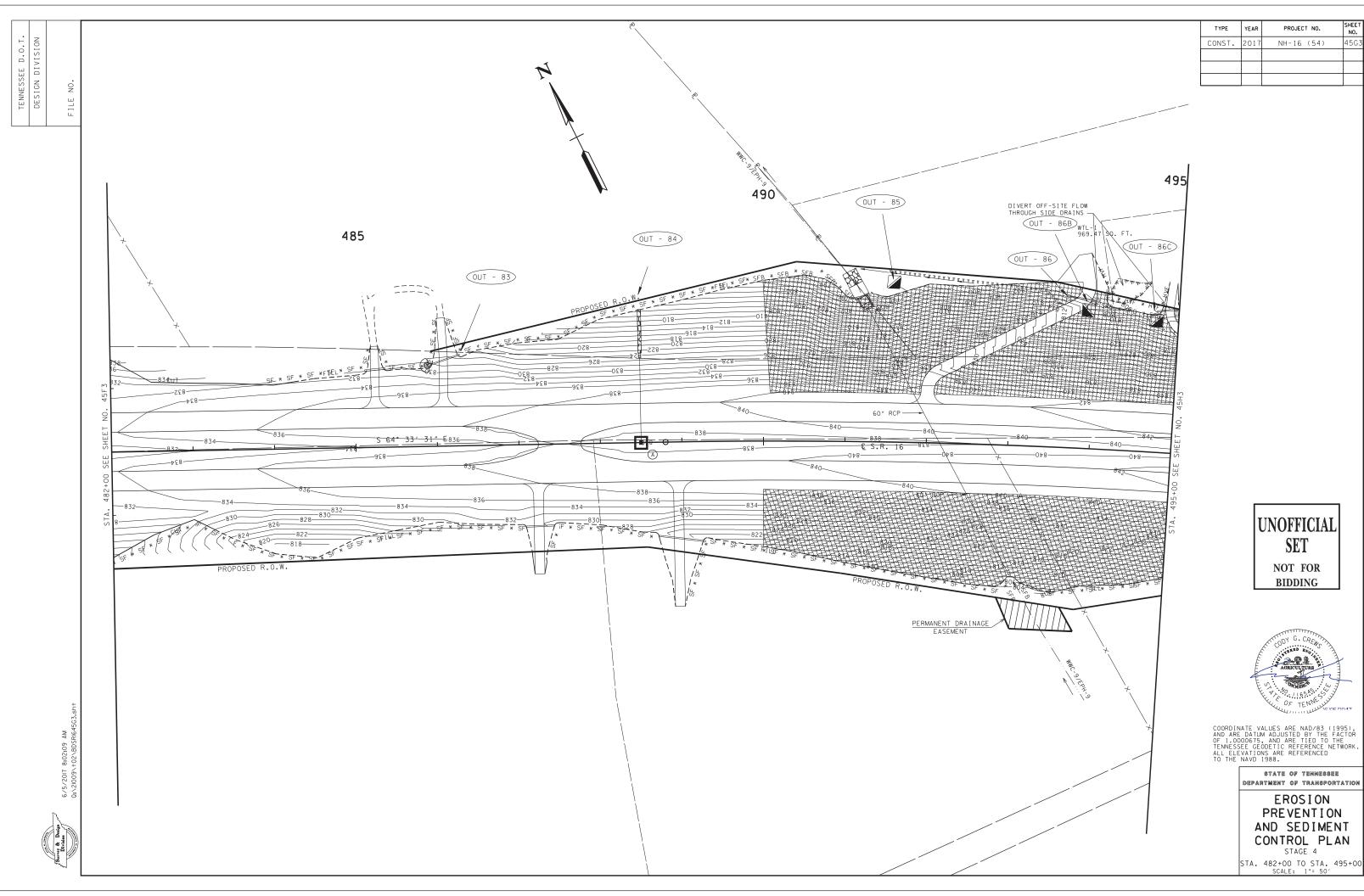
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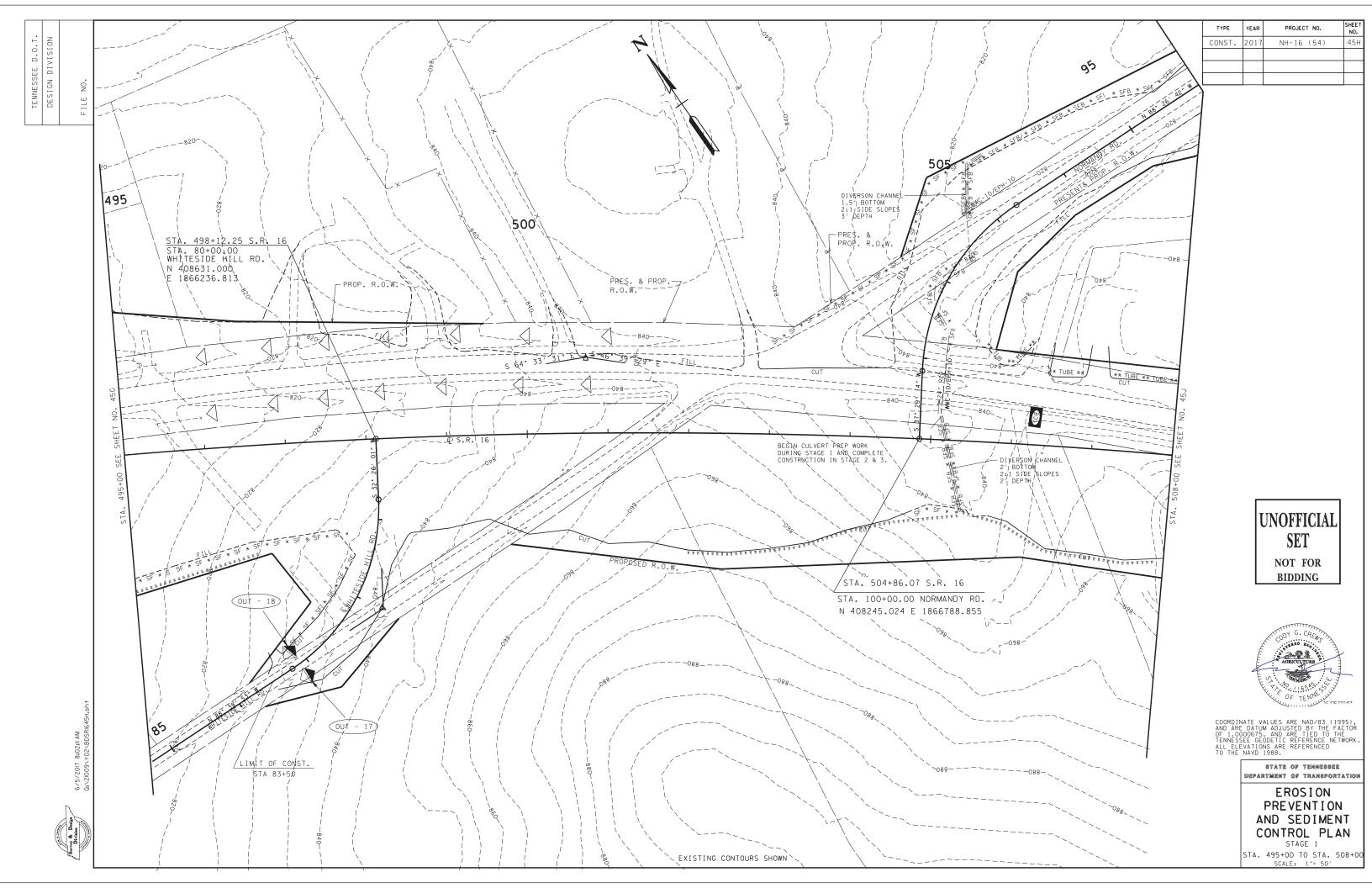
> STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

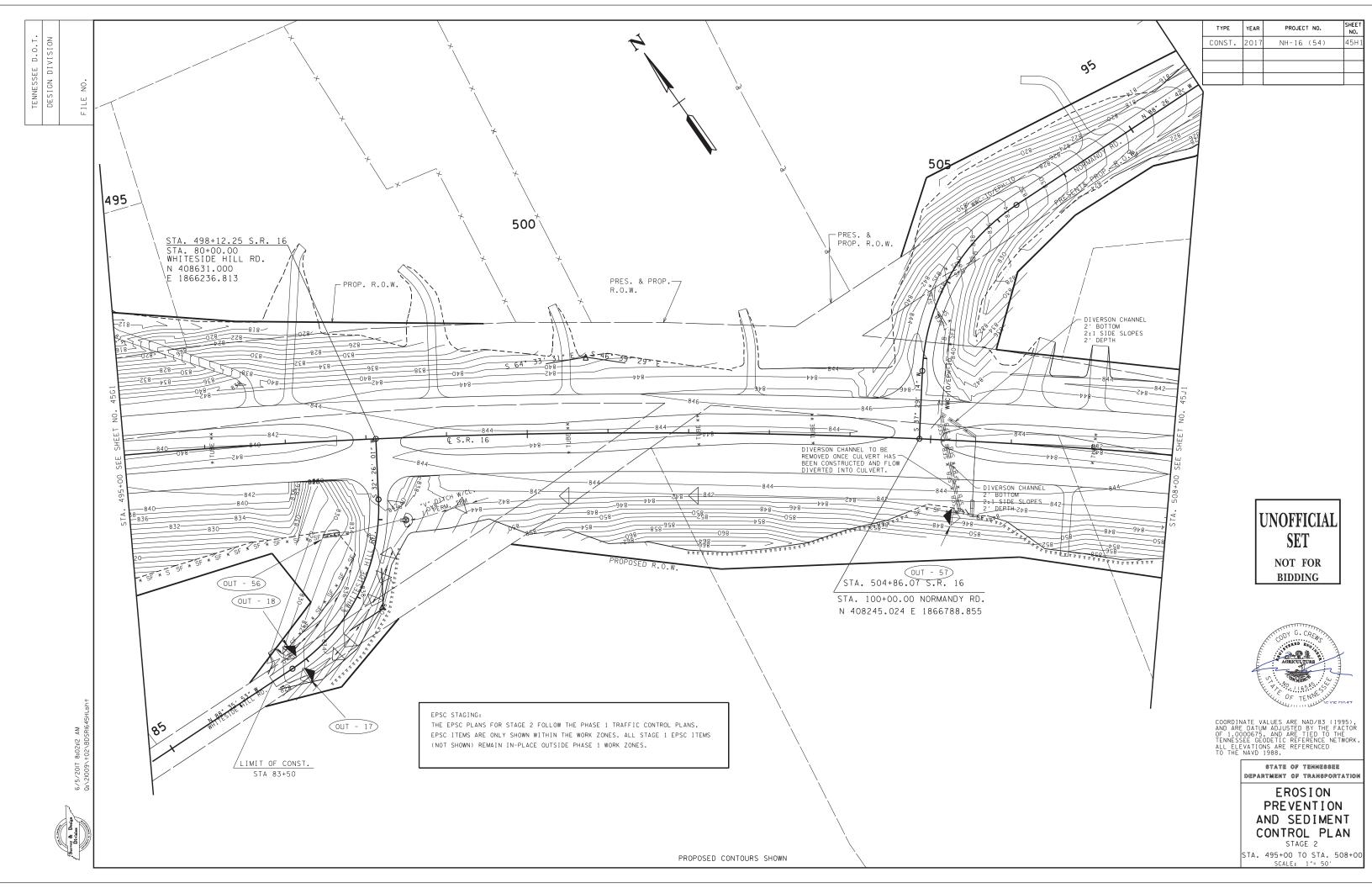
EROSION PREVENTION AND SEDIMENT CONTROL PLAN

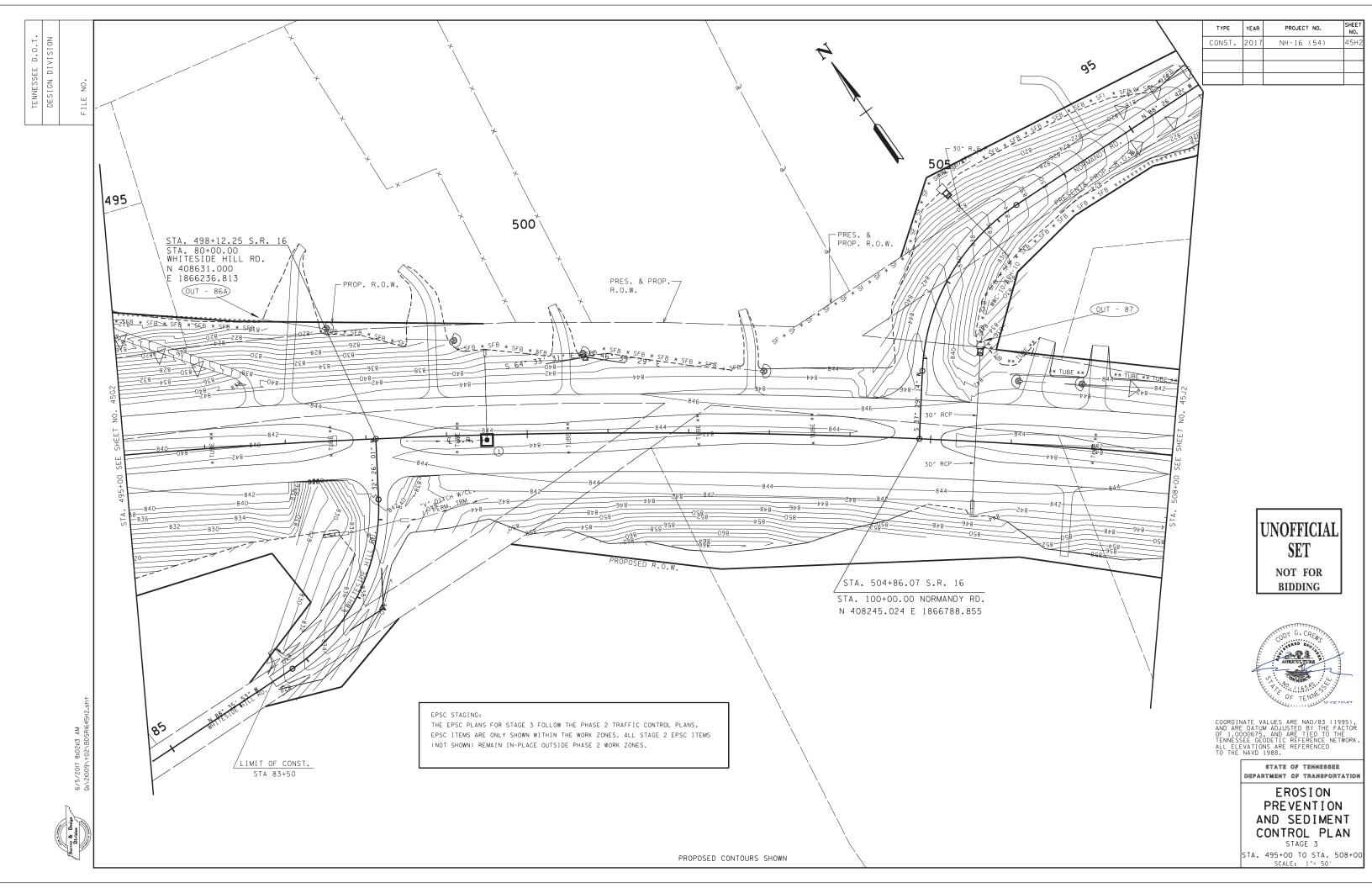
STAGE 2 STA. 482+00 TO STA. 495+00 SCALE: 1"= 50'

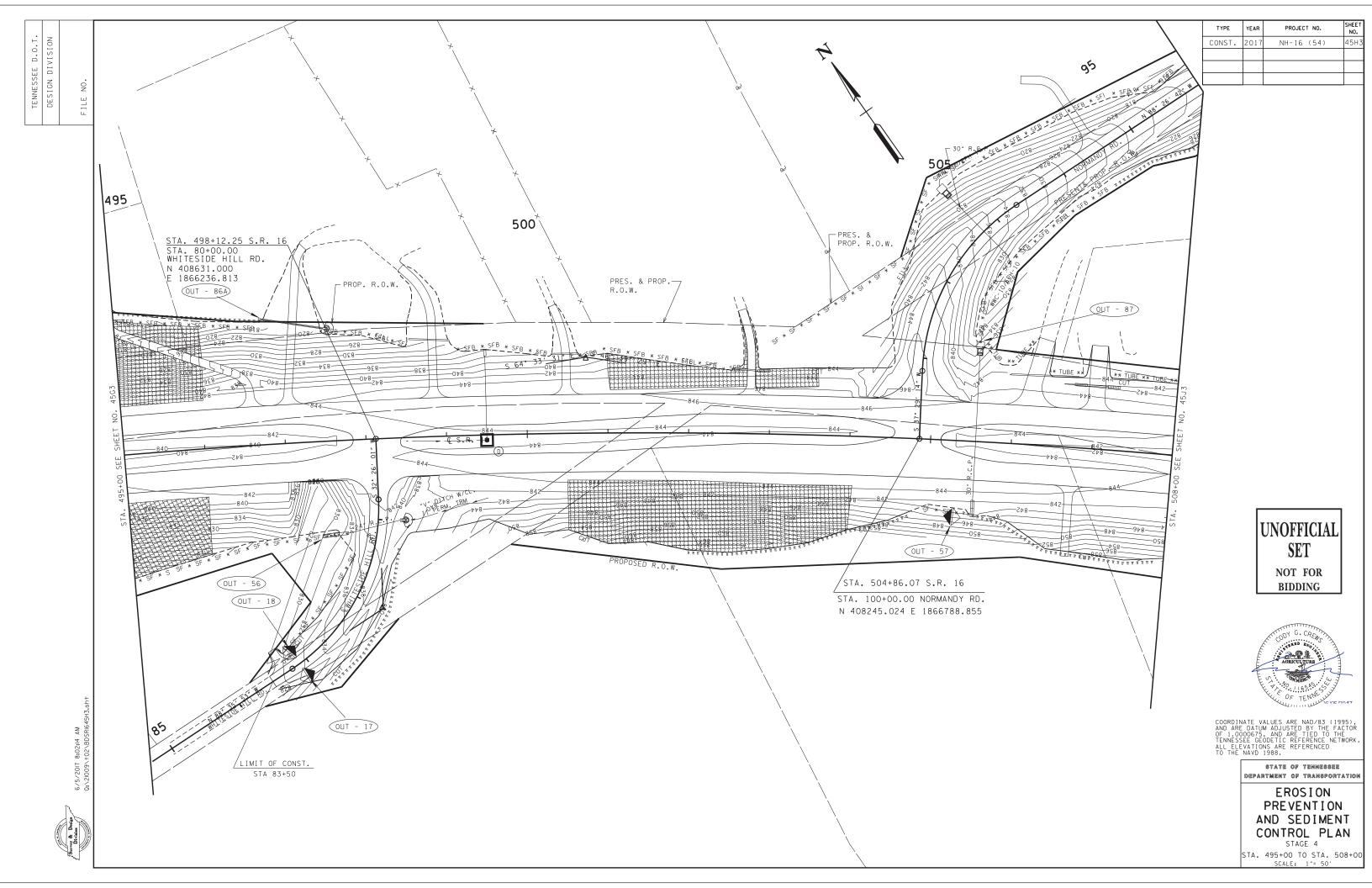


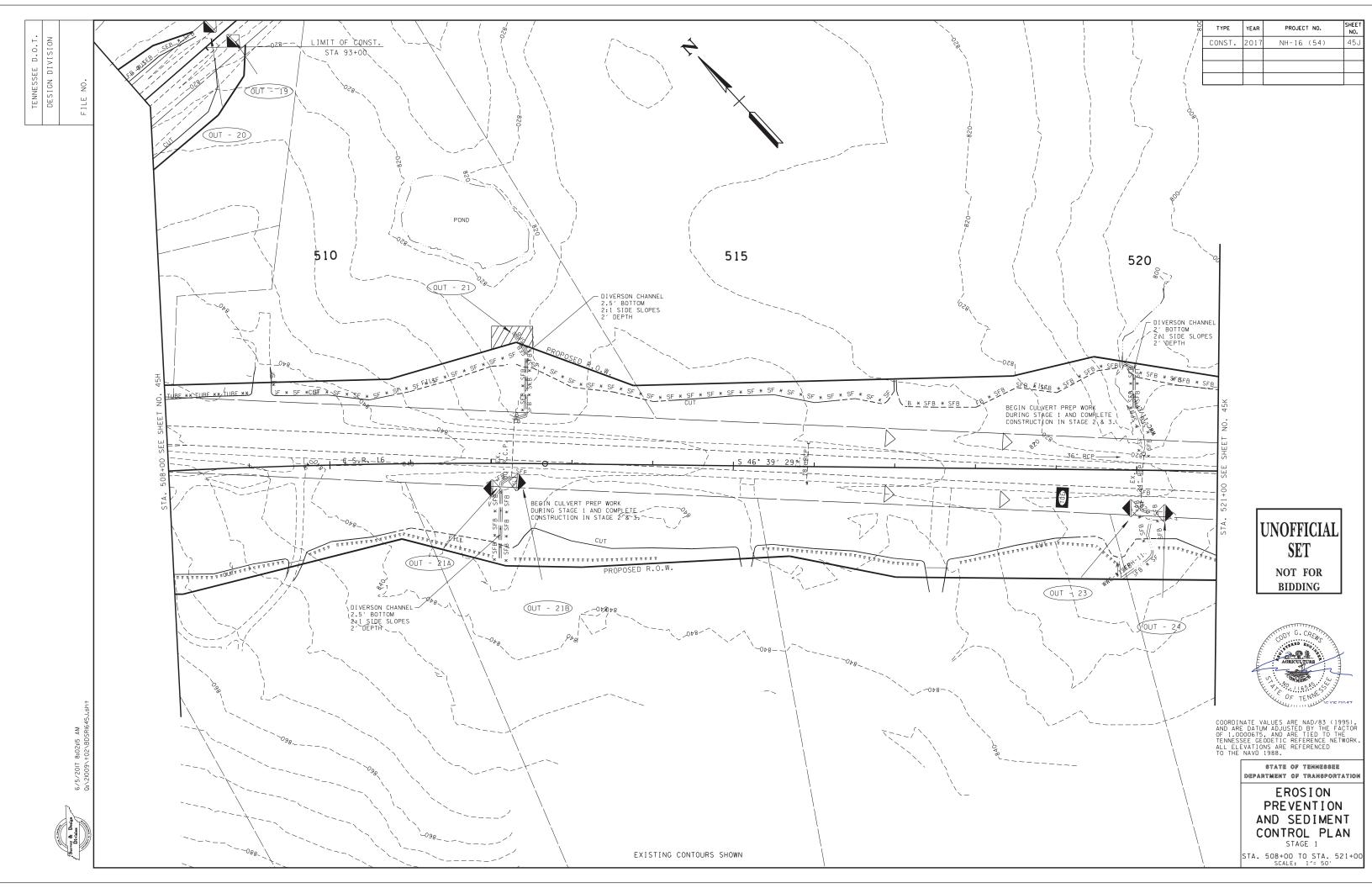


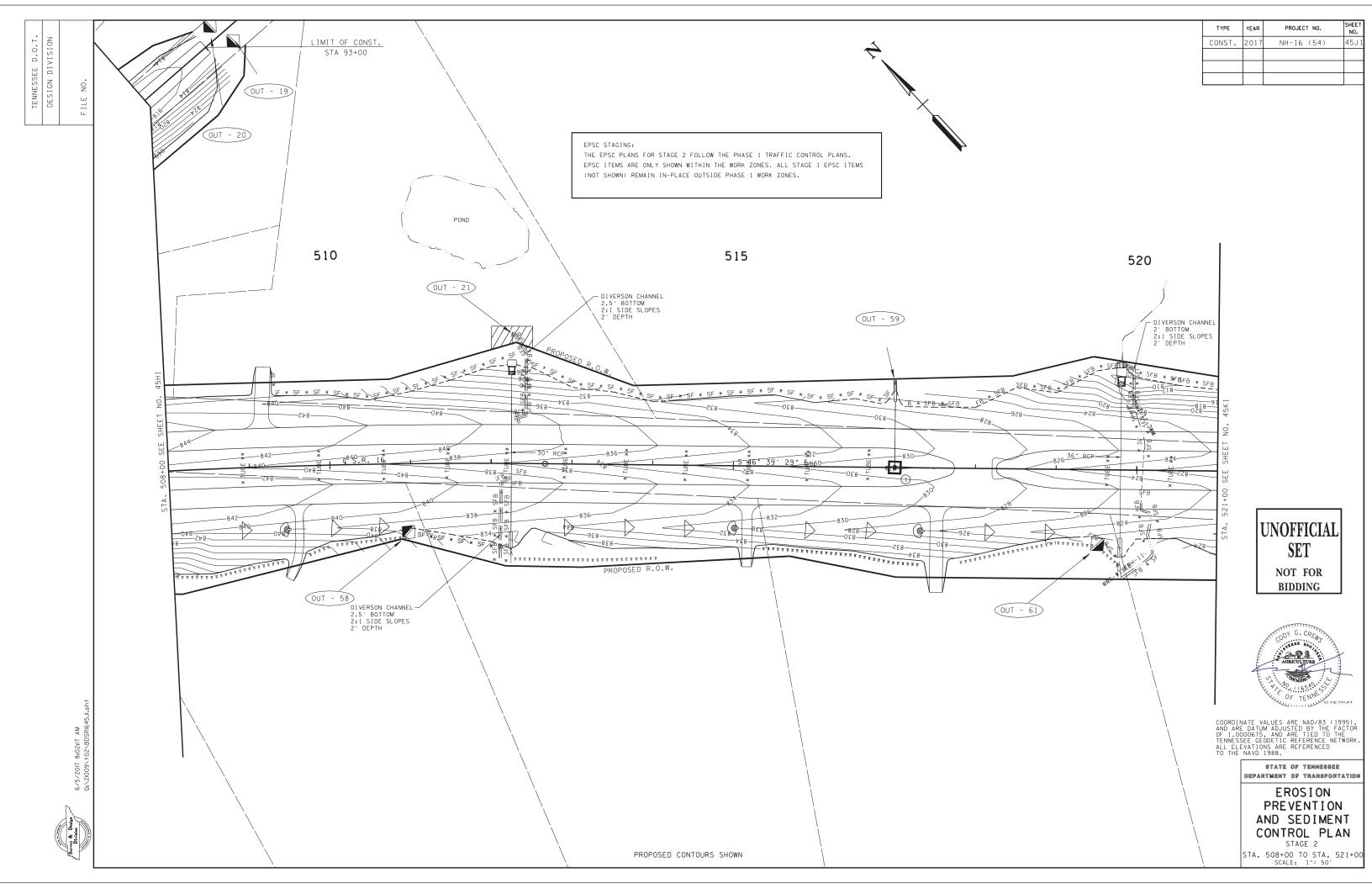


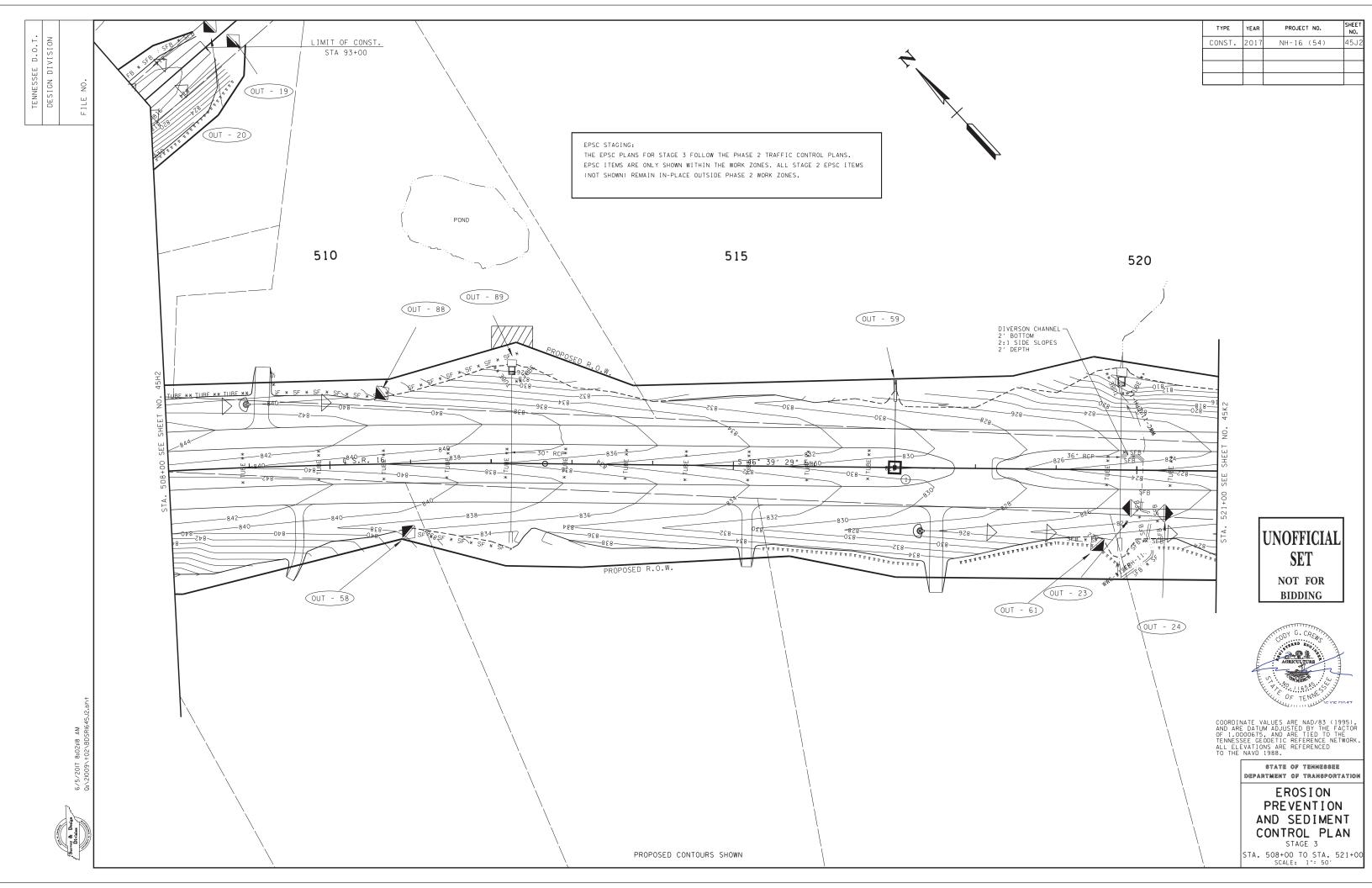


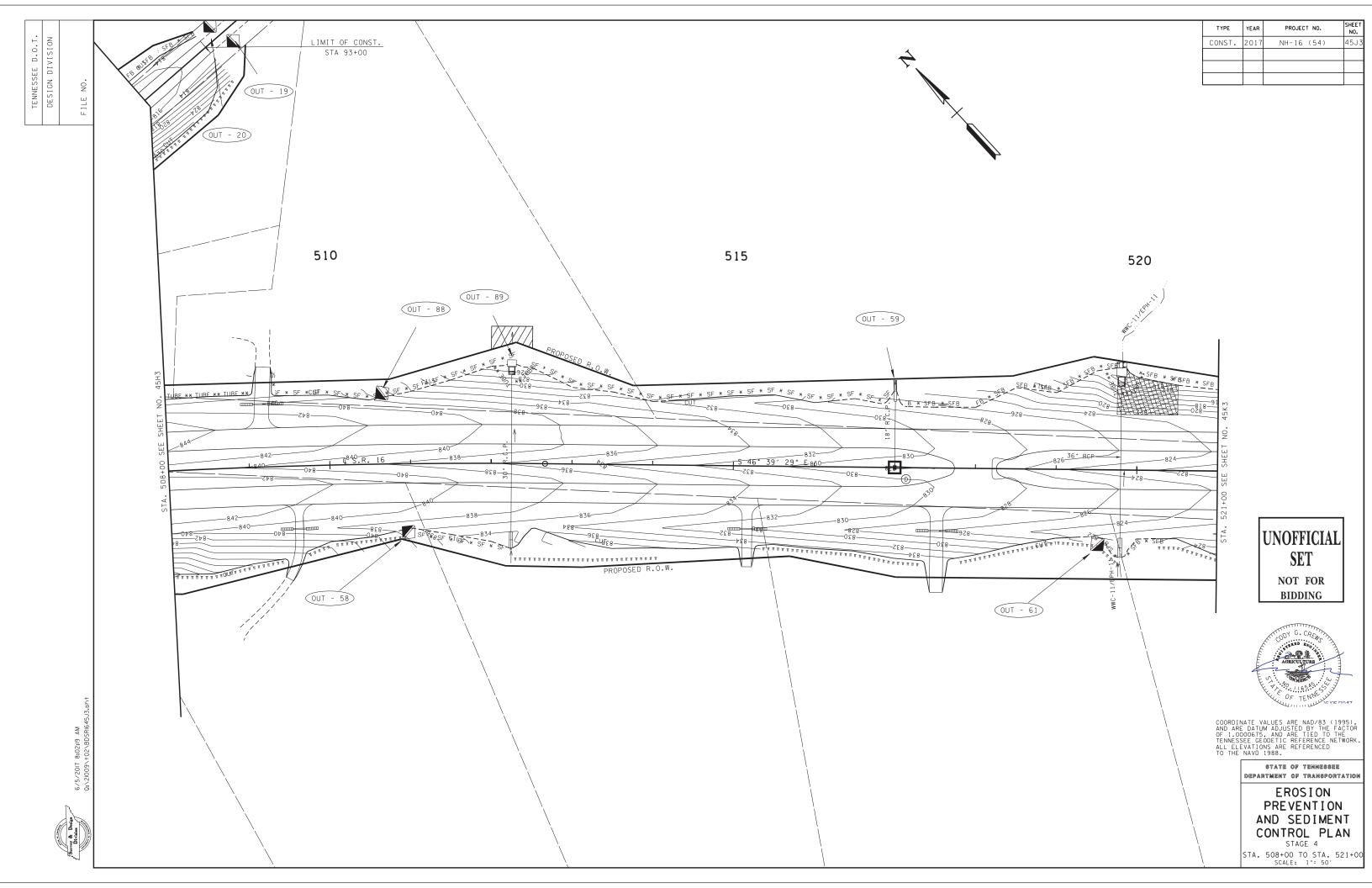


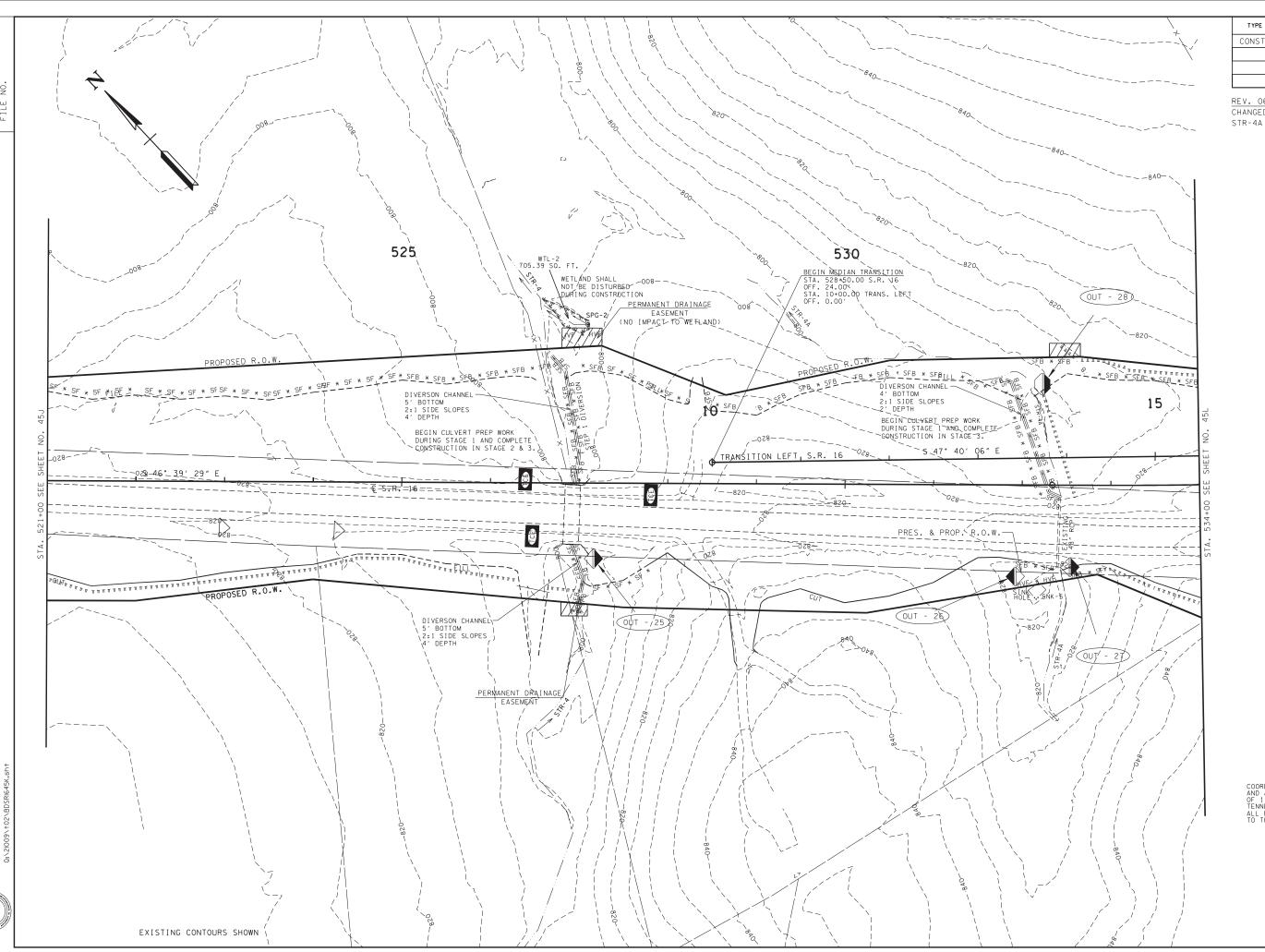












TYPE YEAR PROJECT NO. SHEET NO.

CONST. 2017 NH-16 (54) 45K

REV. 06/21/17 CHANGED WWC-12/EPH-12 TO STR-4A AS PER EB UPDATE.

> UNOFFICIAL SET NOT FOR



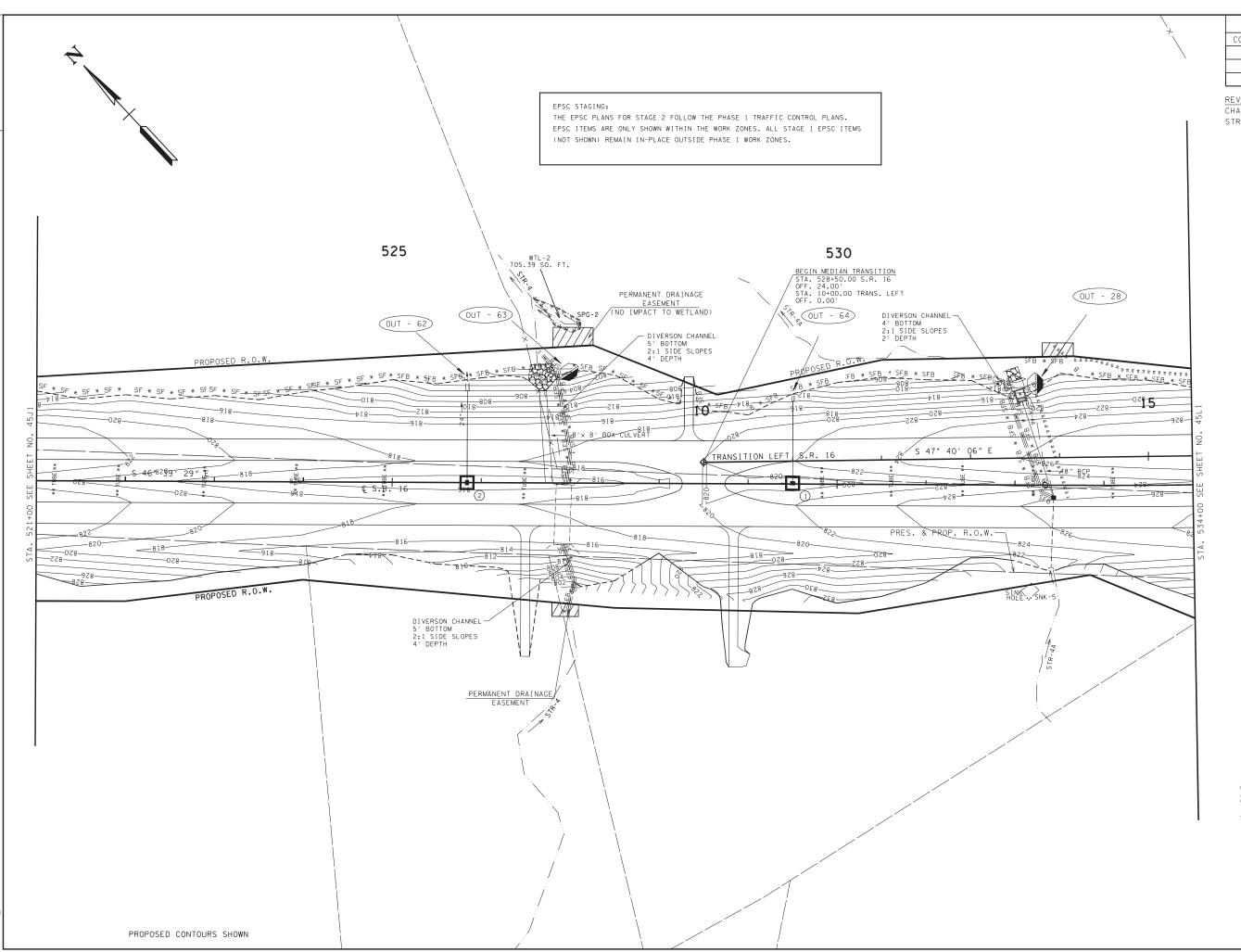
BIDDING

COORDINATE VALUES ARE NAD/83 (1995), AND ARE DATUM ADJUSTED BY THE FACTOR OF 1.0000675, AND ARE TIED TO THE TENNESSEE GEODETIC REFERENCE NETWORK. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

> STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STAGE 1 STA. 521+00 TO STA. 534+00 SCALE: 1"= 50"



TYPE YEAR PROJECT NO. SHEET NO.

CONST. 2017 NH-16 (54) 45K1

REV. 06/21/17 CHANGED WWC-12/EPH-12 TO STR-4A AS PER EB UPDATE.

UNOFFICIAL SET
NOT FOR



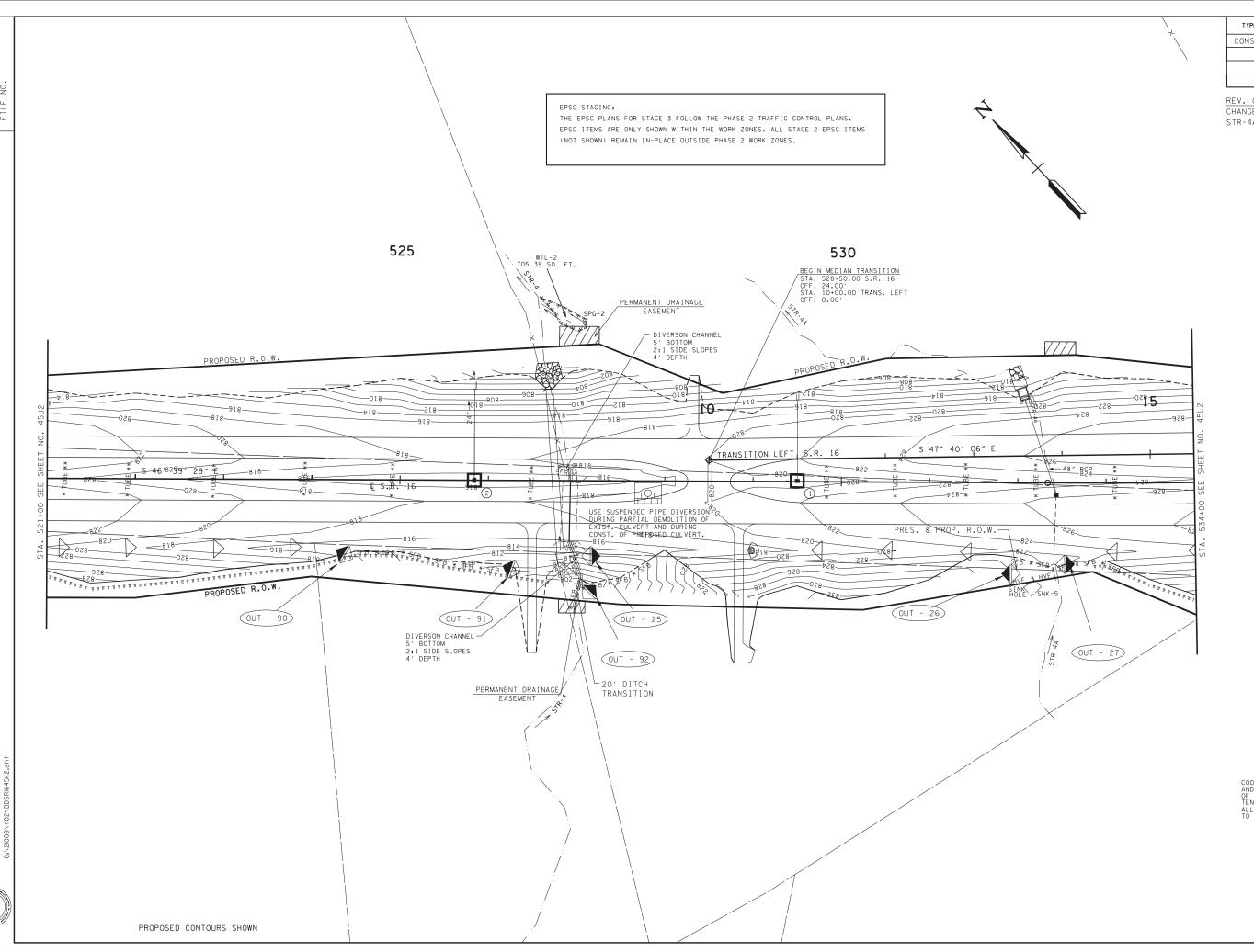
BIDDING

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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STAGE 2 STA. 521+00 TO STA. 534+00 SCALE: 1"= 50'



TYPE YEAR PROJECT NO. SHEET NO.

CONST. 2017 NH-16 (54) 45K2

REV. 06/21/17 CHANGED WWC-12/EPH-12 TO STR-4A AS PER EB UPDATE.

> UNOFFICIAL SET NOT FOR



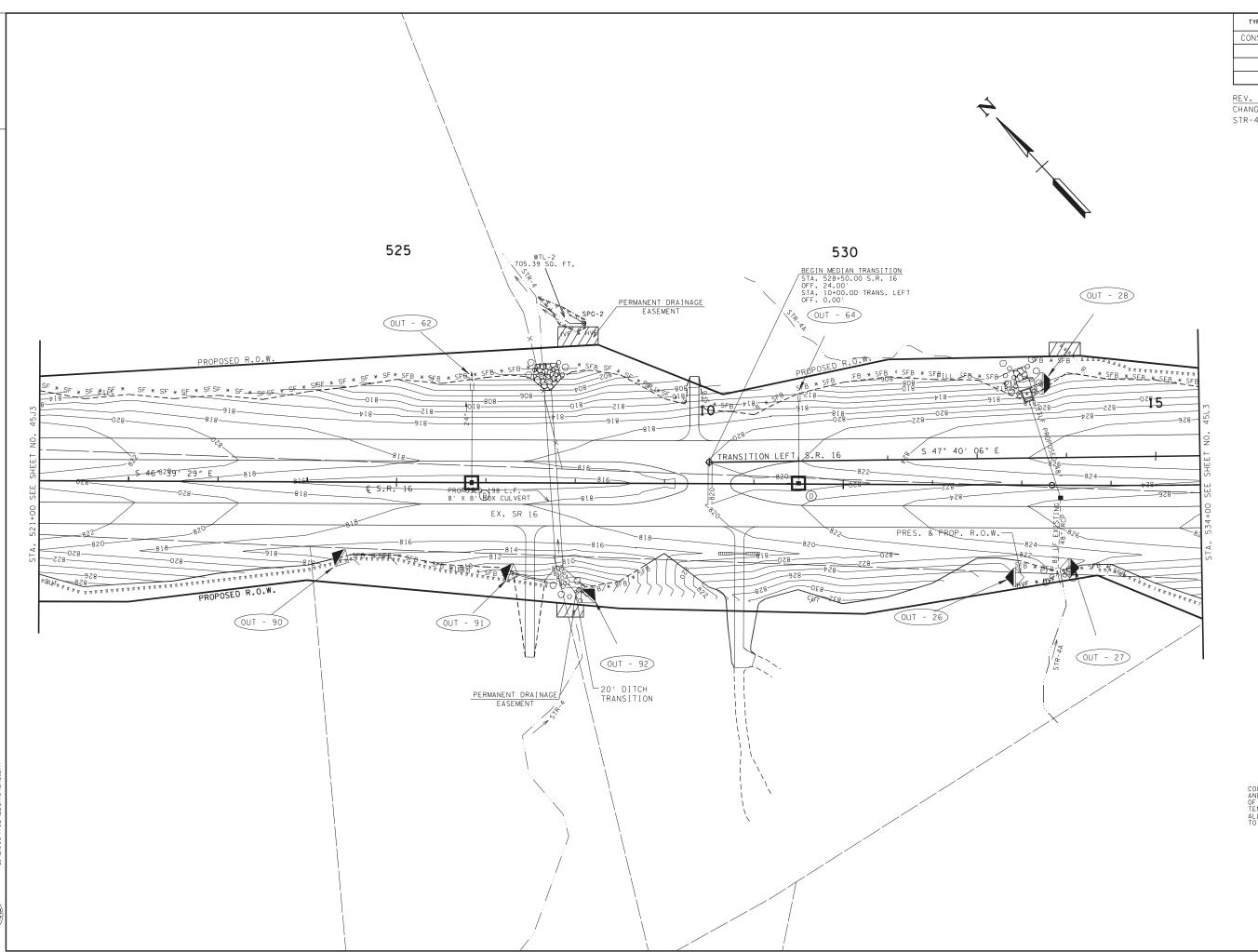
BIDDING

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> STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN
STAGE 3

STA. 521+00 TO STA. 534+00 SCALE: 1"= 50"



 TYPE
 YEAR
 PROJECT NO.
 SHEET NO.

 CONST.
 2017
 NH-16 (54)
 45K3

REV. 06/21/17 CHANGED WWC-12/EPH-12 TO STR-4A AS PER EB UPDATE.

UNOFFICIAL SET NOT FOR



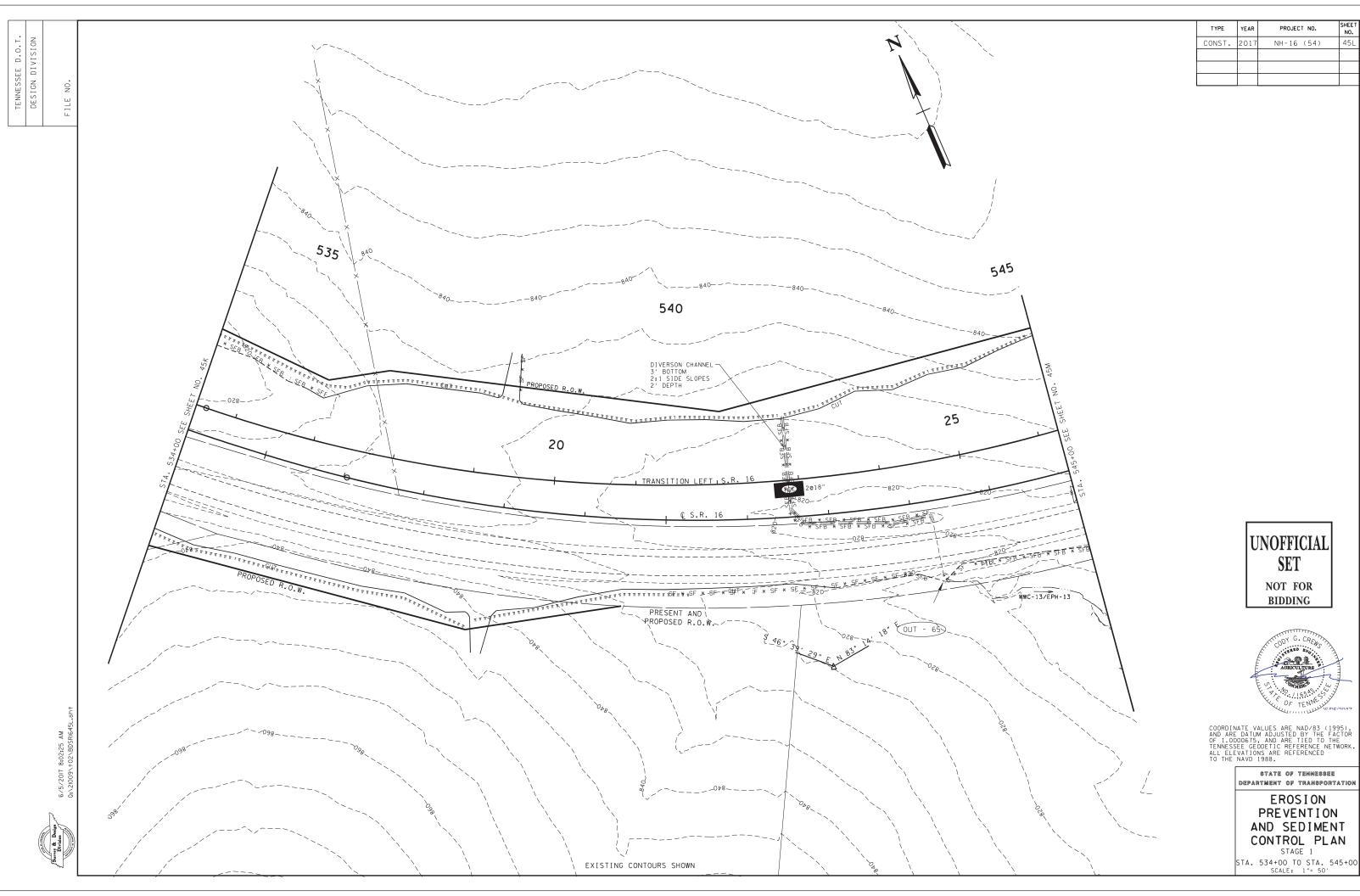
BIDDING

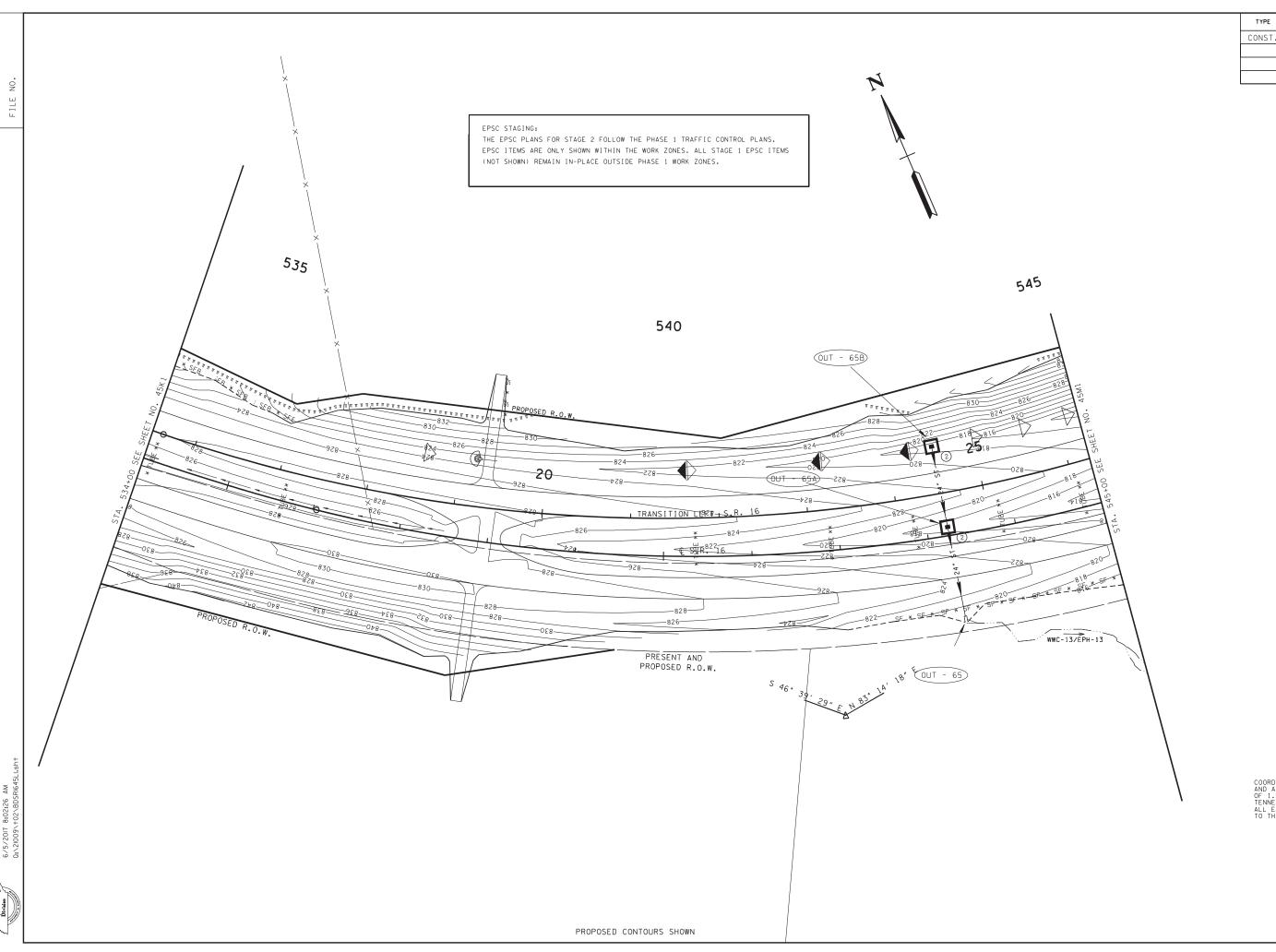
COORDINATE VALUES ARE NAD/83 (1995), AND ARE DATUM ADJUSTED BY THE FACTOR OF 1.0000675, AND ARE TIED TO THE TENNESSEE GEODETIC REFERENCE NETWORK. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STAGE 4 STA. 521+00 TO STA. 534+00 SCALE: 1"= 50'





TYPE YEAR PROJECT NO. SHEET NO.

CONST. 2017 NH-16 (54) 45L1

UNOFFICIAL SET NOT FOR BIDDING



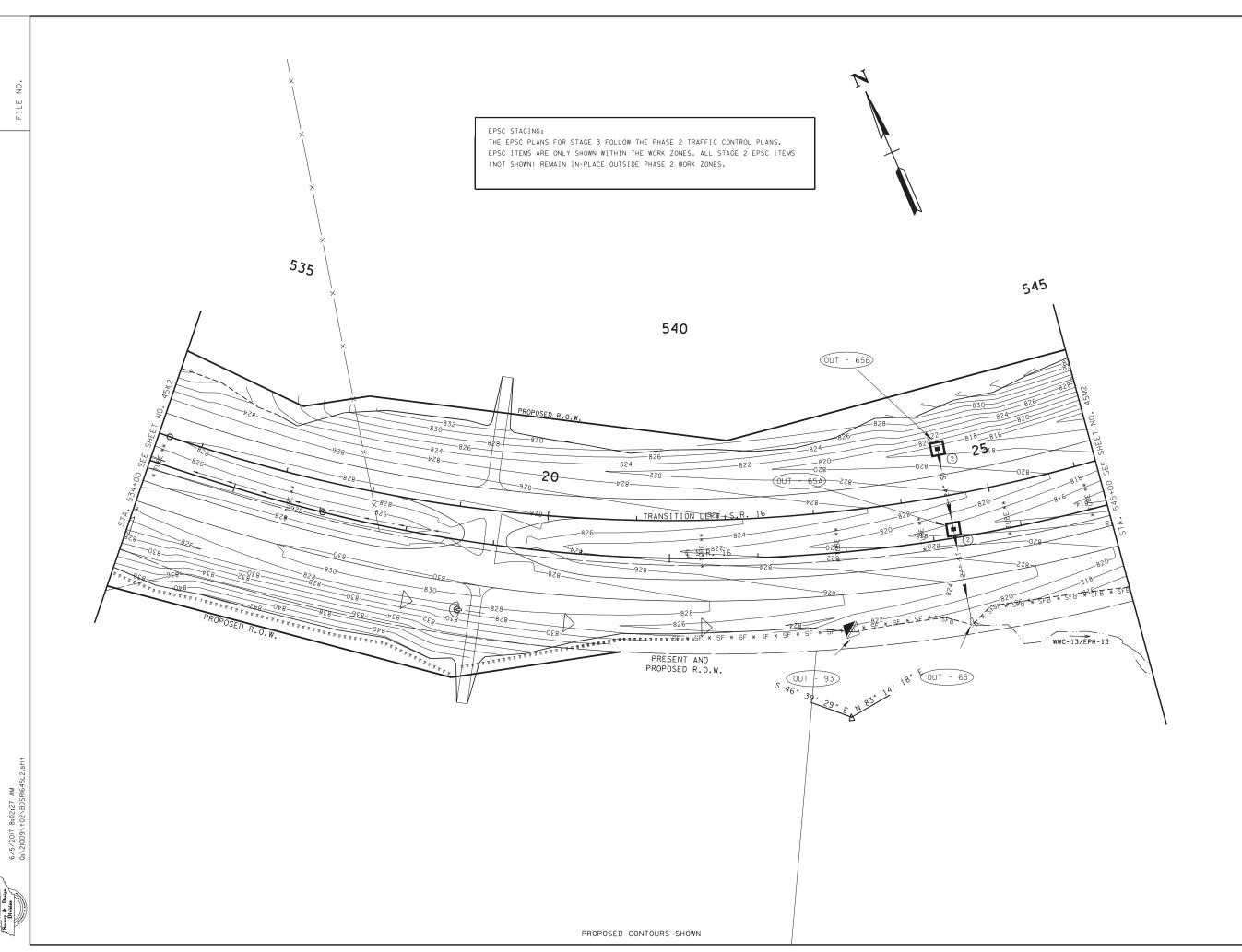
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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STAGE 2

STA. 534+00 TO STA. 545+00 SCALE: 1"= 50'



TYPE YEAR PROJECT NO. SHEET NO.

CONST. 2017 NH-16 (54) 45L2

UNOFFICIAL SET NOT FOR BIDDING



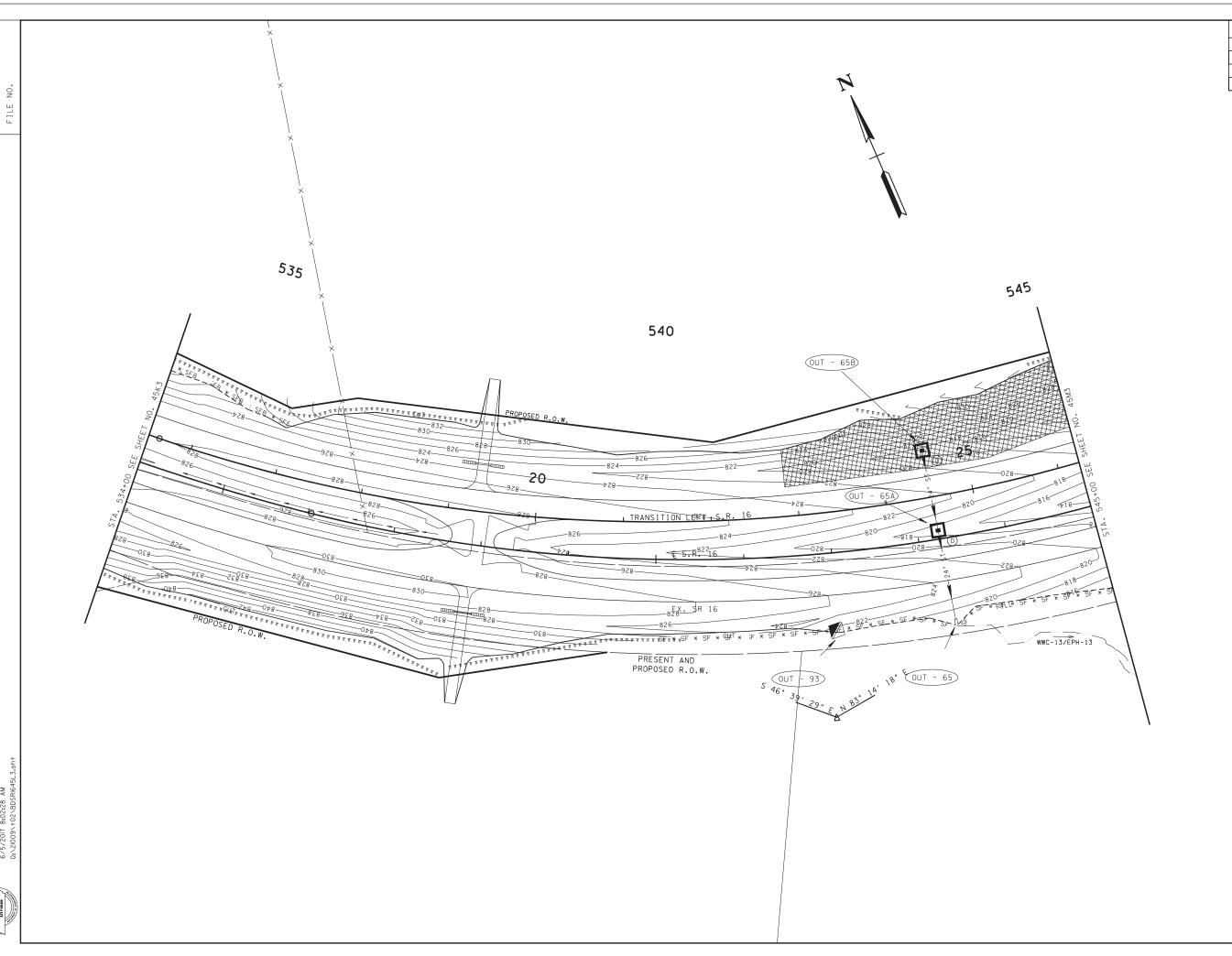
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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STAGE 3

STA. 534+00 TO STA. 545+00 SCALE: 1"= 50'



PROJECT NO. CONST. NH-16 (54)

> UNOFFICIAL SET NOT FOR BIDDING

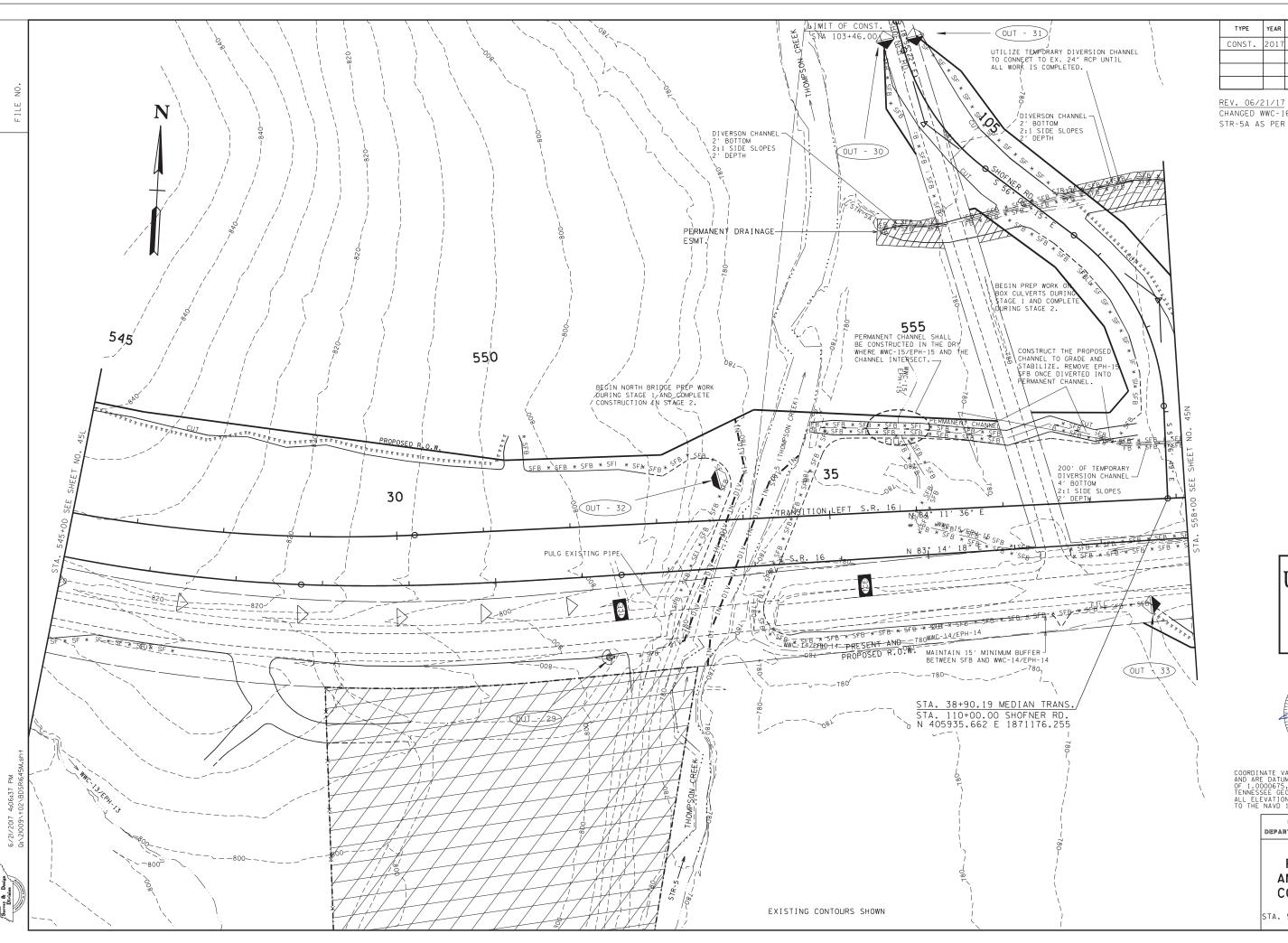


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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STA. 534+00 TO STA. 545+00 SCALE: 1"= 50'



CHANGED WWC-16/EPH-16 TO STR-5A AS PER EB UPDATE.

> UNOFFICIAL SET NOT FOR



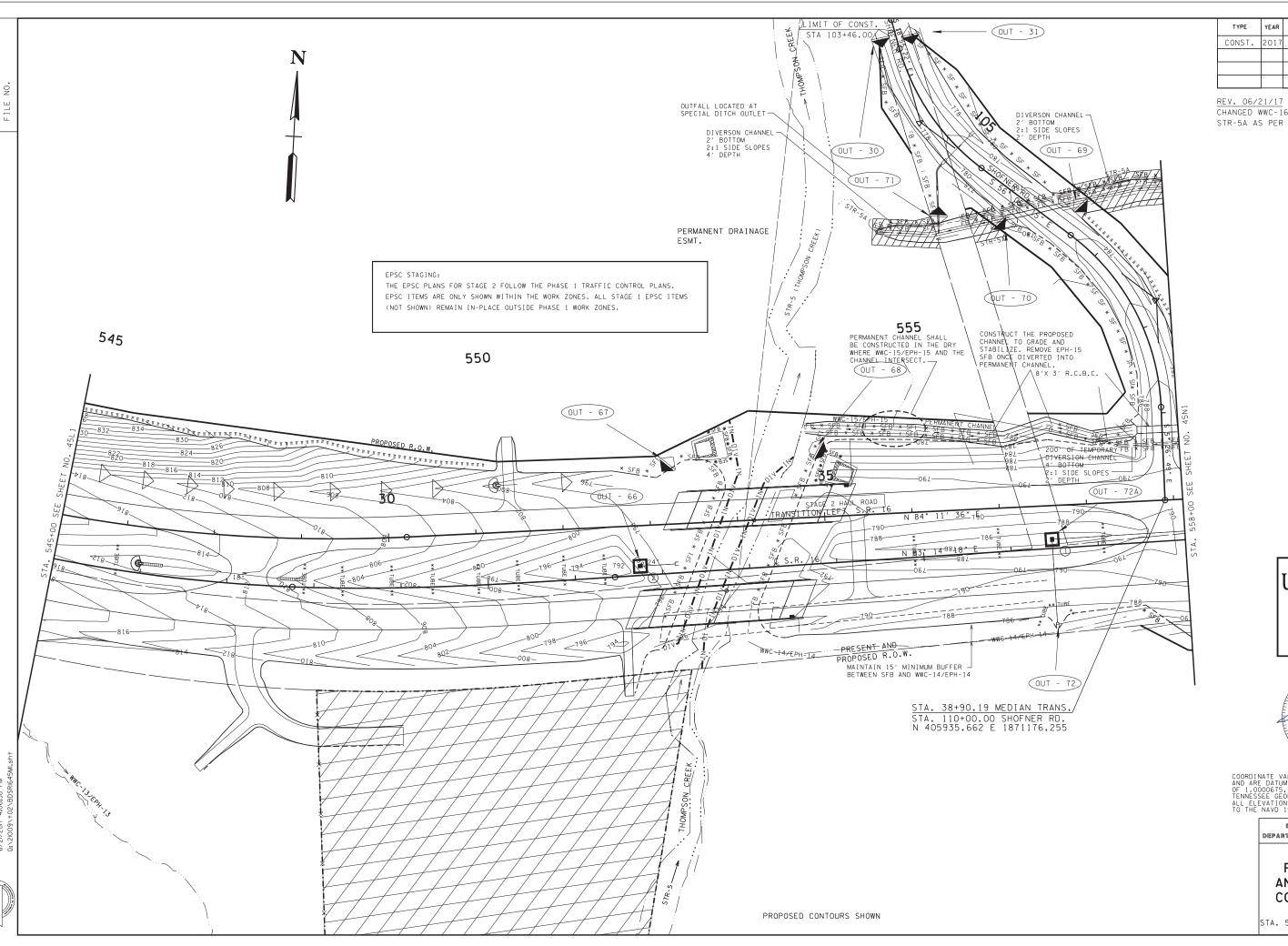
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COORDINATE VALUES ARE NAD/83 (1995), AND ARE DATUM ADJUSTED BY THE FACTOR OF 1.0000675, AND ARE TIED TO THE TENNESSEE GEODETIC REFERENCE NETWORK. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STAGE 1 STA. 545+00 TO STA. 558+00 SCALE: 1"= 50'



CHANGED WWC-16/EPH-16 TO STR-5A AS PER EB UPDATE.

> UNOFFICIAL SET NOT FOR

> > **BIDDING**



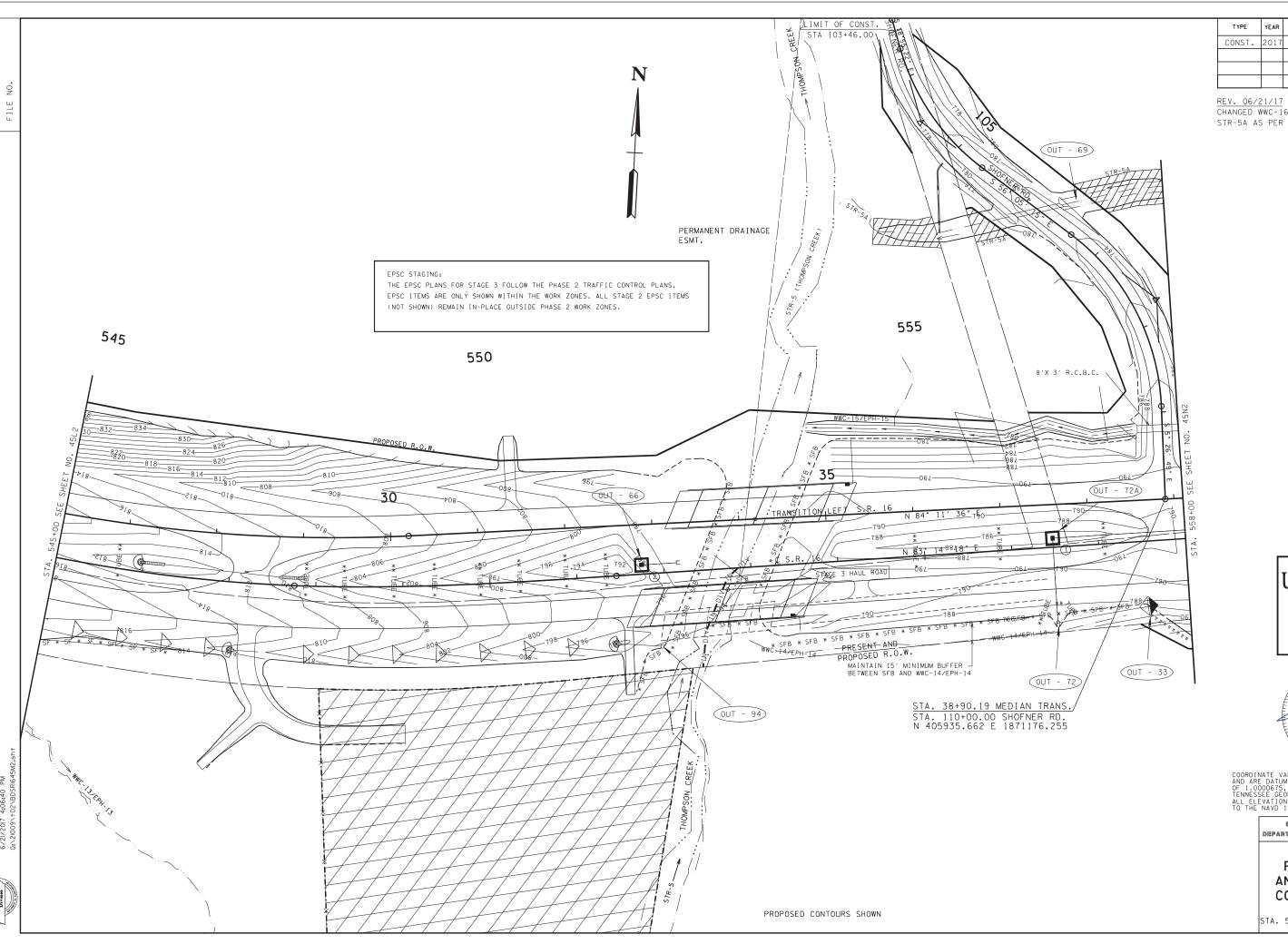
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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STAGE 2

STA. 545+00 TO STA. 558+00 SCALE: 1"= 50'



CHANGED WWC-16/EPH-16 TO STR-5A AS PER EB UPDATE.

UNOFFICIAL SET NOT FOR

BIDDING

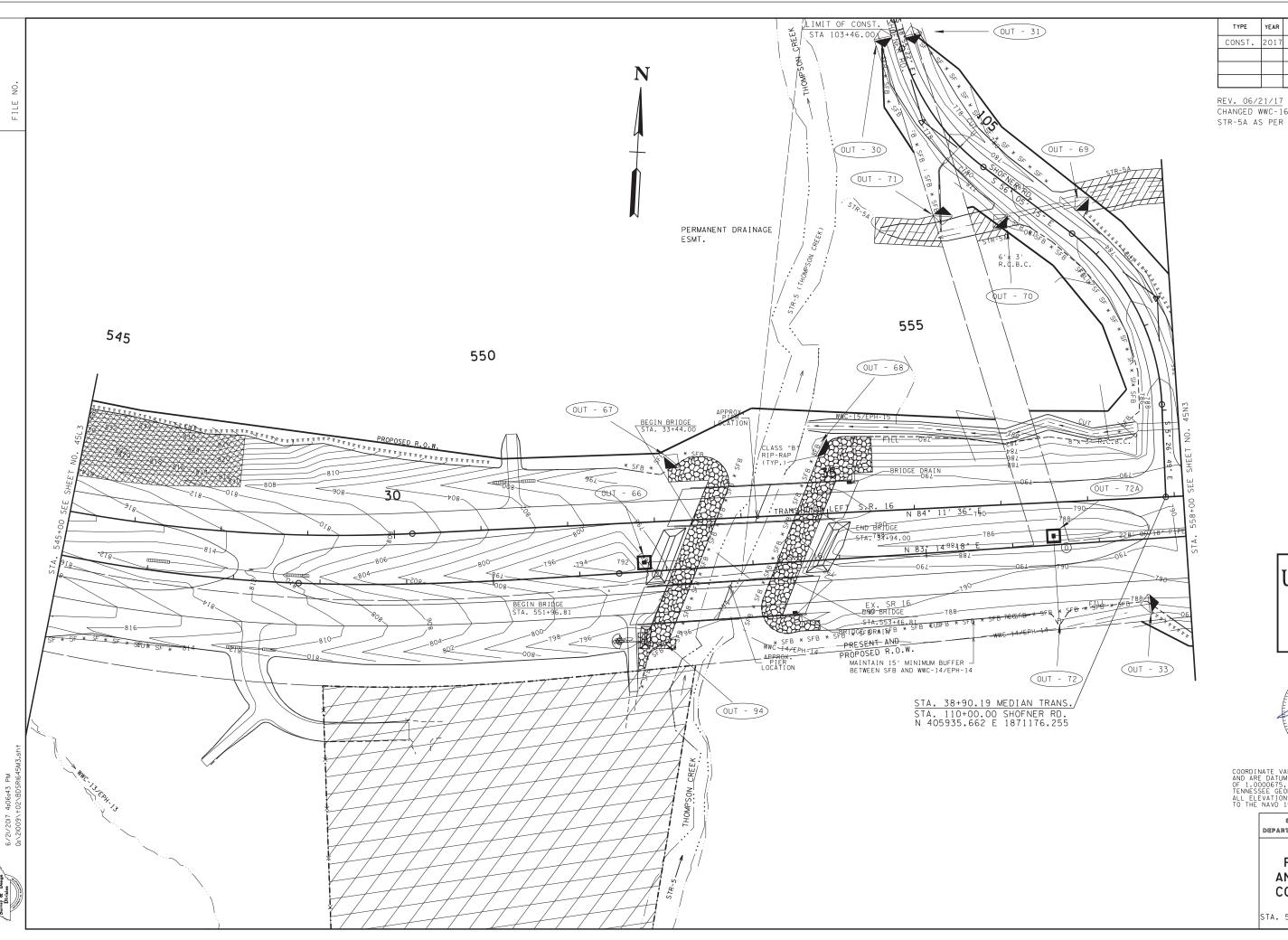


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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STAGE 3 STA. 545+00 TO STA. 558+00 SCALE: 1"= 50'



CHANGED WWC-16/EPH-16 TO STR-5A AS PER EB UPDATE.

> **UNOFFICIAL** SET NOT FOR



BIDDING

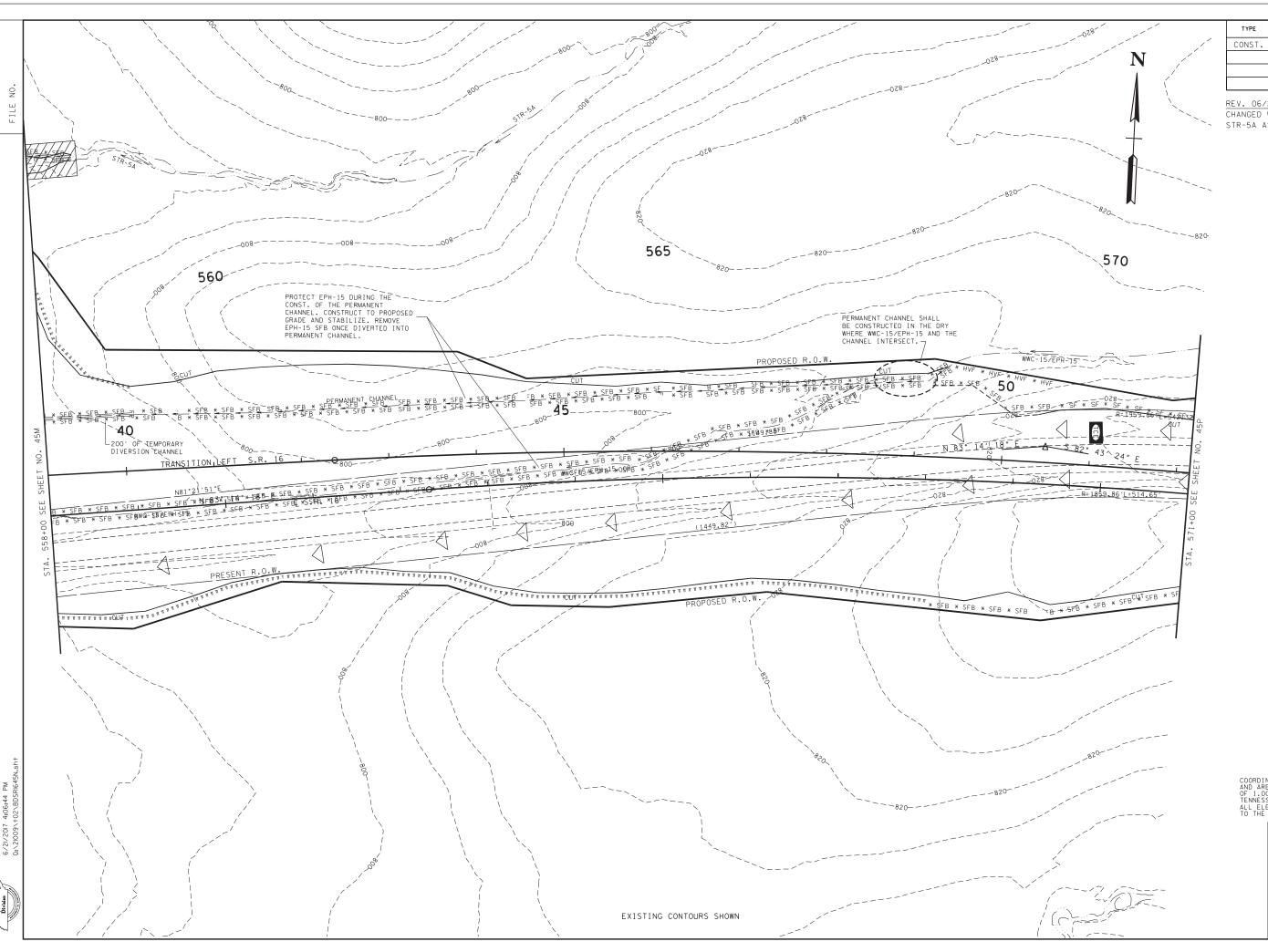
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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STAGE 4

STA. 545+00 TO STA. 558+00 SCALE: 1"= 50'



 TYPE
 YEAR
 PROJECT NO.
 SHEET NO.

 CONST.
 2017
 NH-16 (54)
 45N

REV. 06/21/17 CHANGED WWC-16/EPH-16 TO STR-5A AS PER EB UPDATE.

> UNOFFICIAL SET NOT FOR



BIDDING

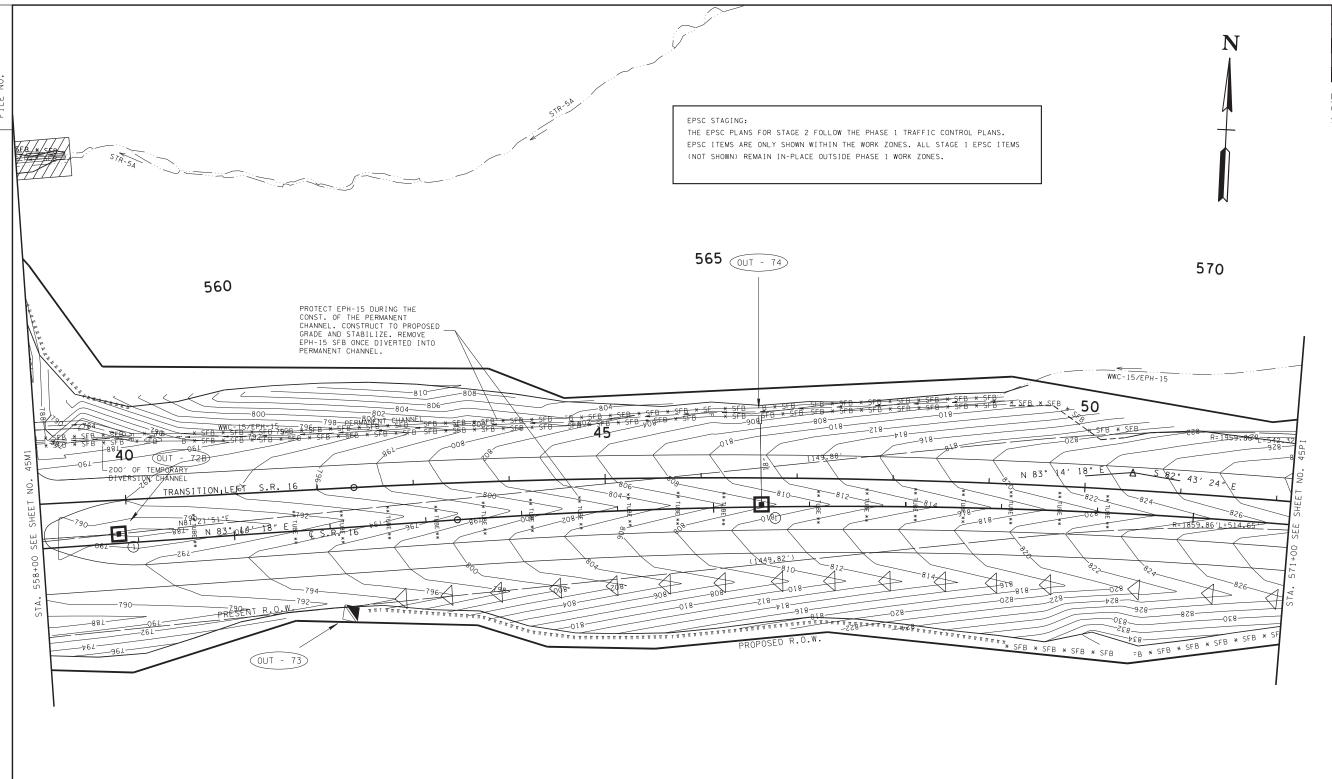
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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STAGE 1

STA. 558+00 TO STA. 571+00



TYPE YEAR PROJECT NO. SHEET NO.

CONST. 2017 NH-16 (54) 45N1

REV. 06/21/17 CHANGED WWC-16/EPH-16 TO STR-5A AS PER EB UPDATE.

> UNOFFICIAL SET NOT FOR



BIDDING

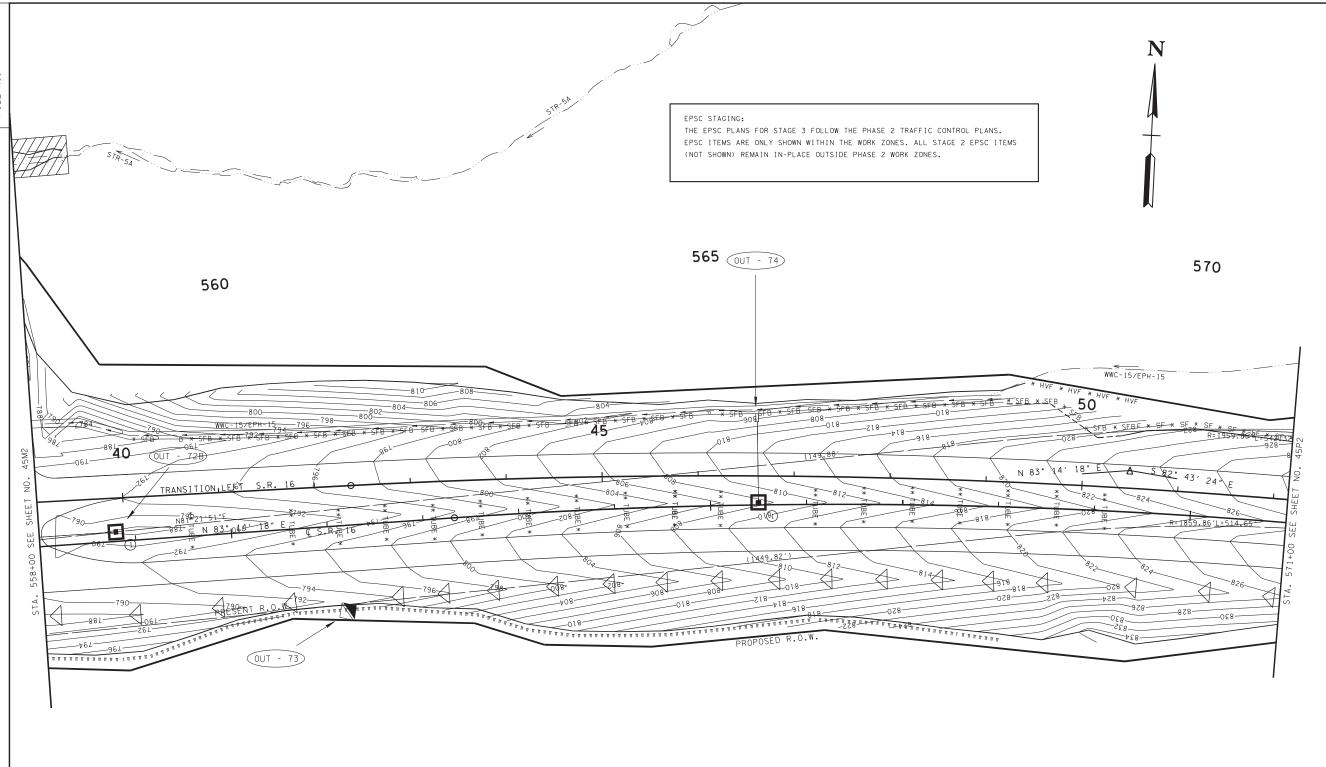
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> STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STAGE 2 STA. 558+00 TO STA. 571+00 SCALE: 1"= 50'

Division



TYPE YEAR PROJECT NO. SHEET NO.

CONST. 2017 NH-16 (54) 45N2

REV. 06/21/17 CHANGED WWC-16/EPH-16 TO STR-5A AS PER EB UPDATE.

> UNOFFICIAL SET NOT FOR

> > **BIDDING**



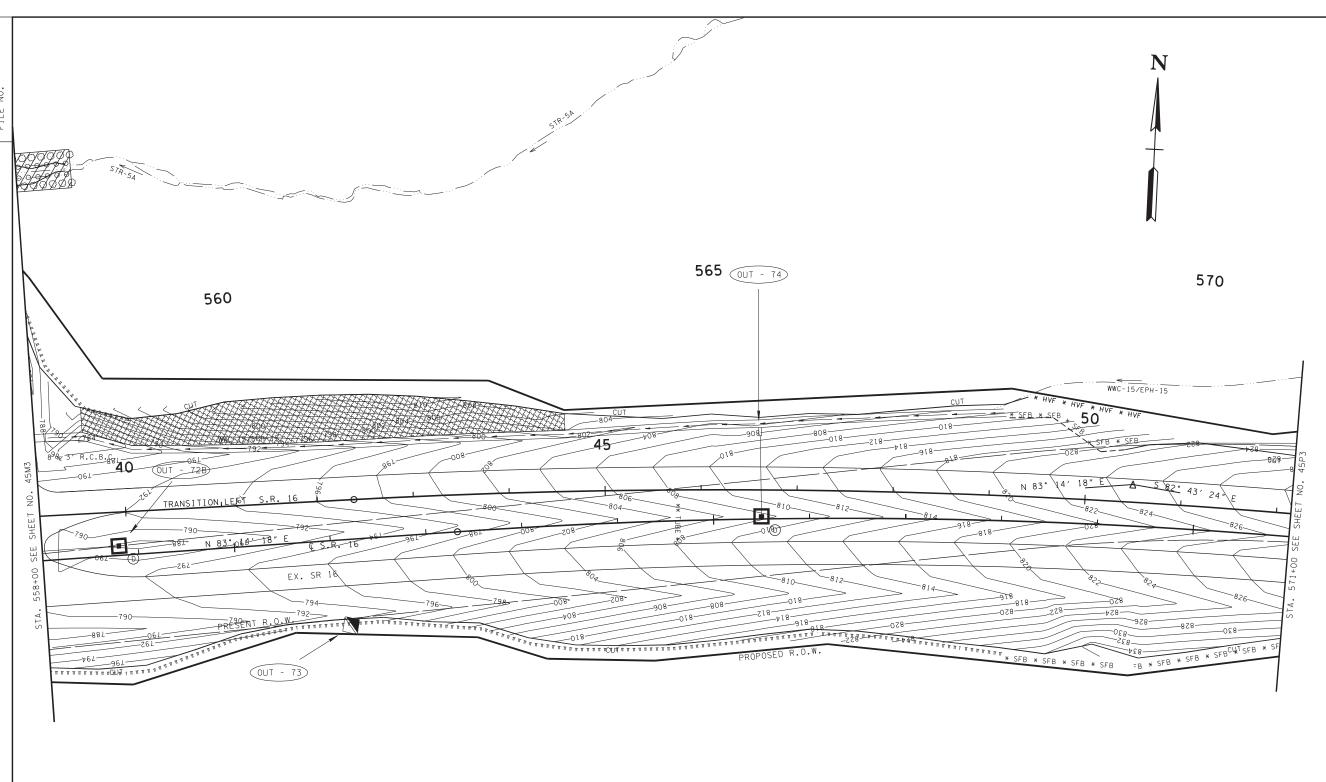
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> STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN
STAGE 3

STA. 558+00 TO STA. 571+00 SCALE: 1"= 50'

PROPOSED CONTOURS SHOWN



TYPE YEAR PROJECT NO. SHEET NO. CONST. 2017 NH-16 (54) 45N3

REV. 06/21/17 CHANGED WWC-16/EPH-16 TO STR-5A AS PER EB UPDATE.

> UNOFFICIAL SET NOT FOR



BIDDING

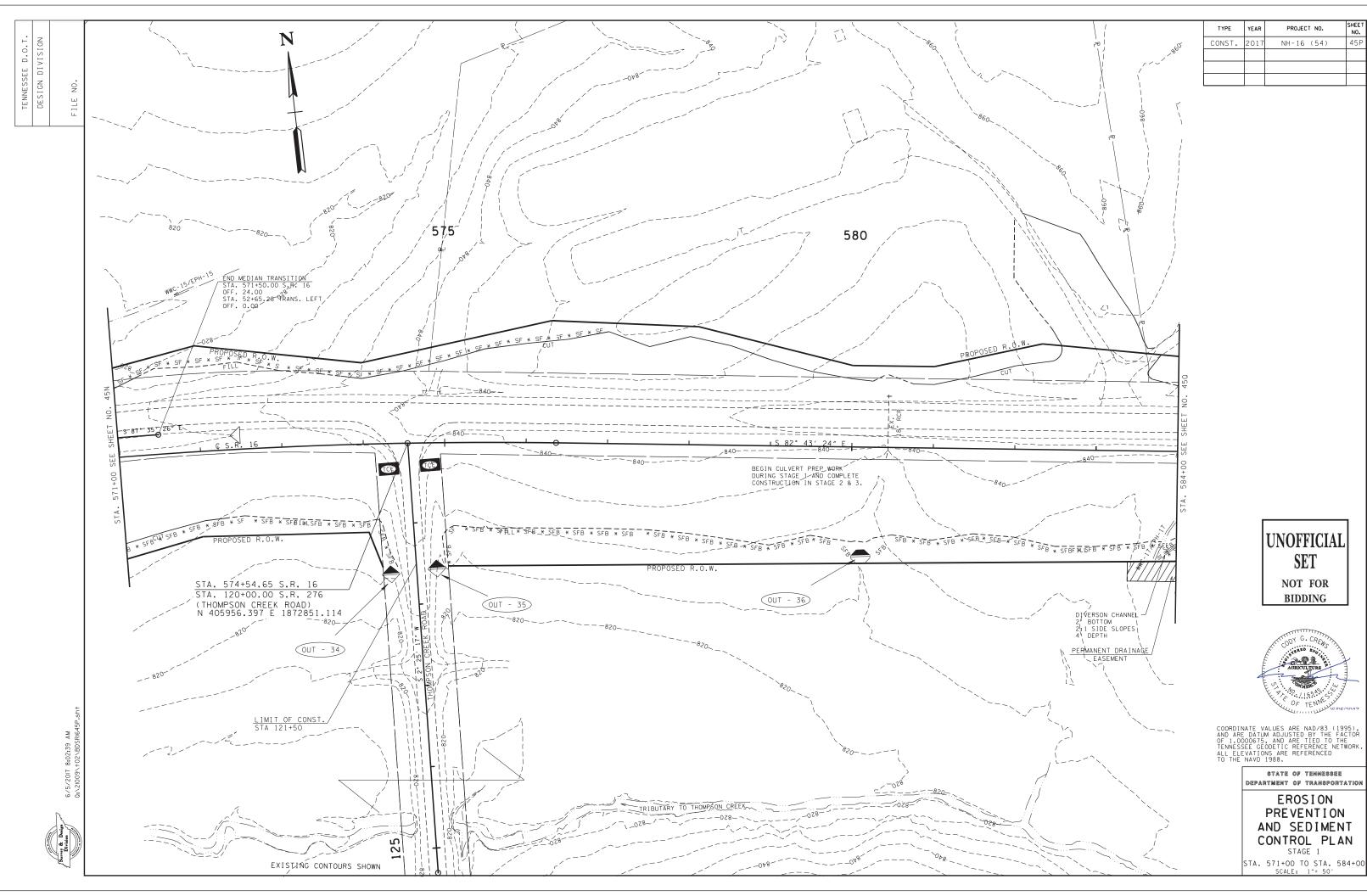
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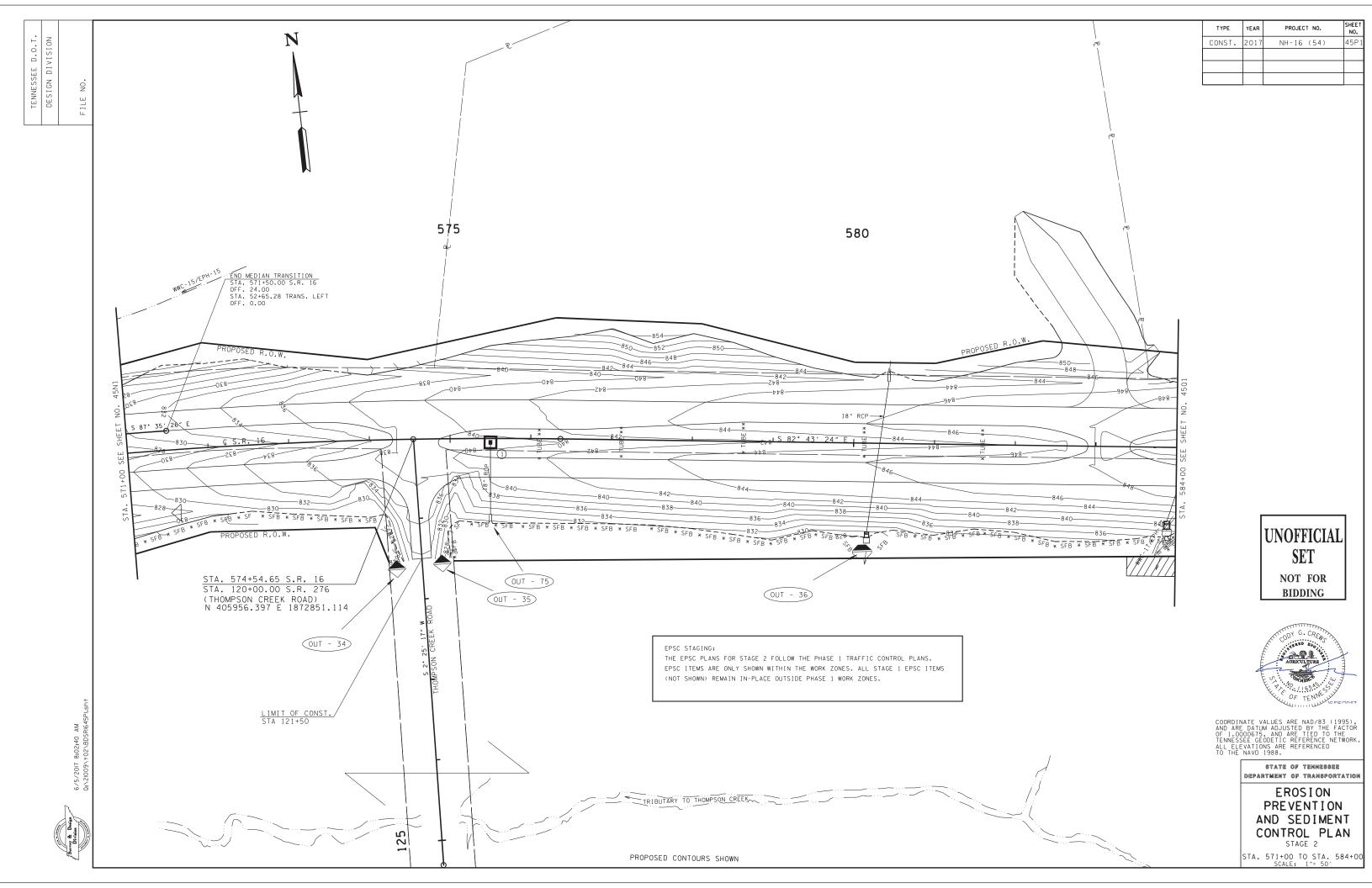
> STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

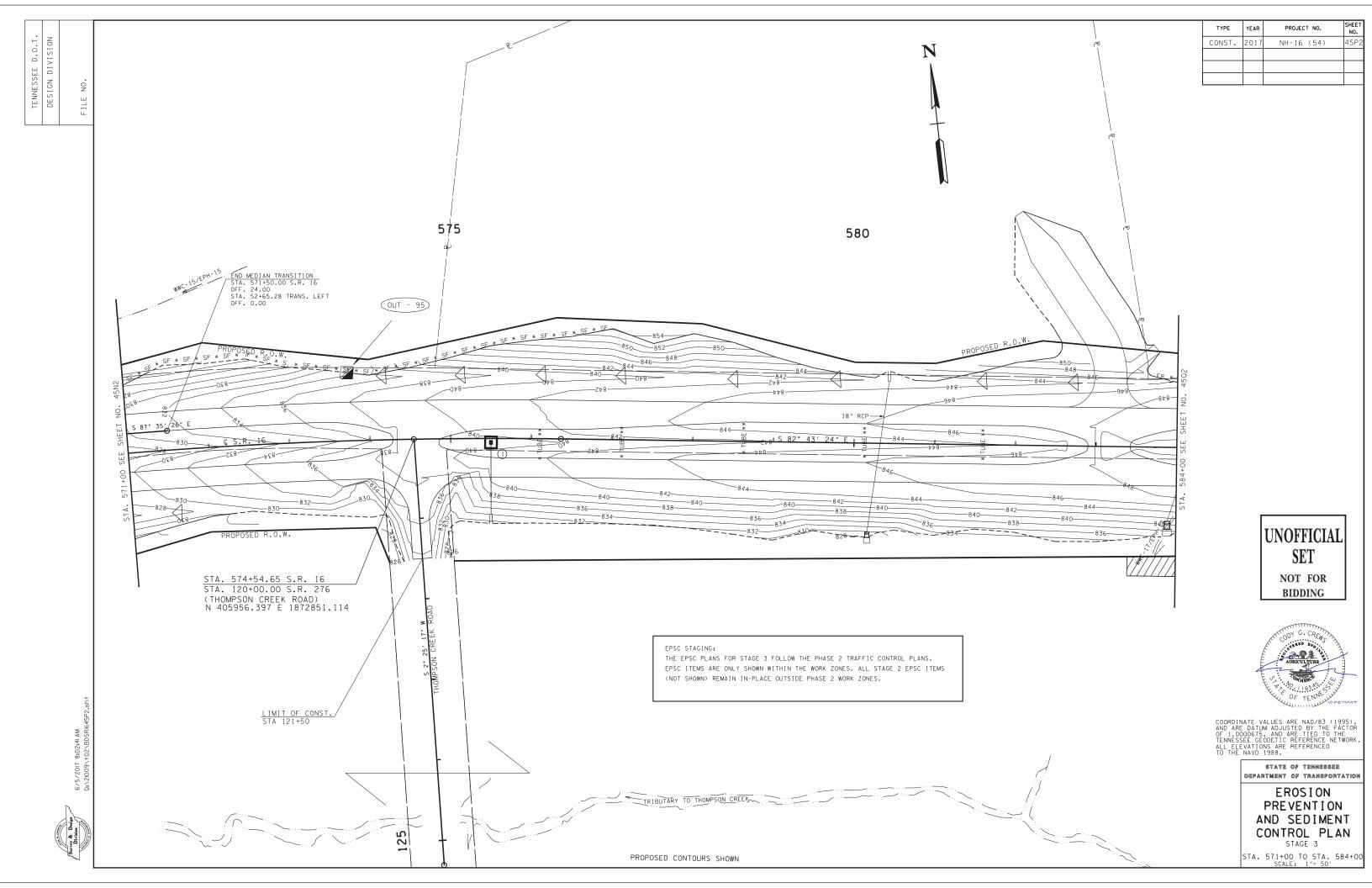
EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

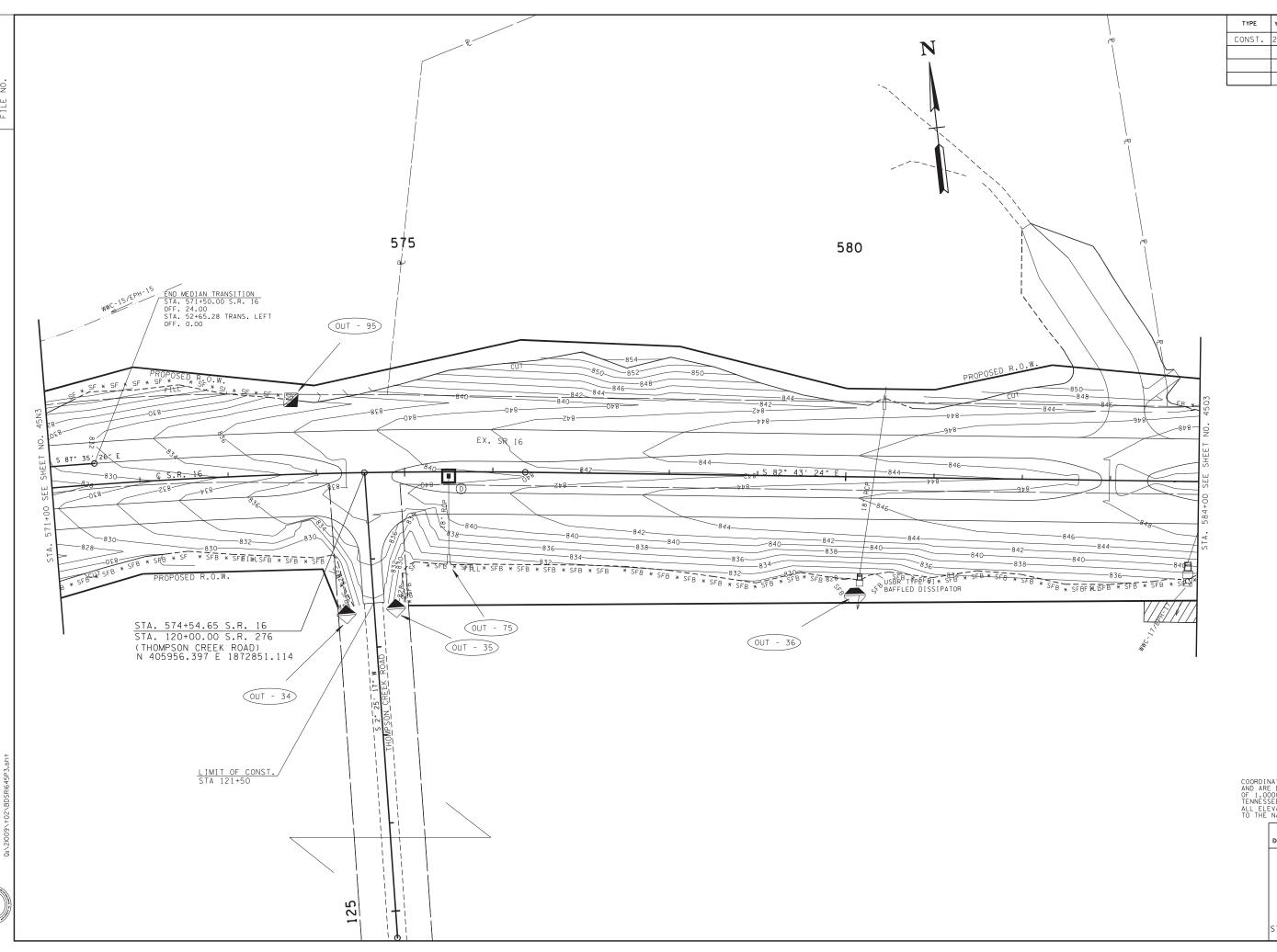
STAGE 4 STA. 558+00 TO STA. 571+00 SCALE: 1"= 50'











 TYPE
 YEAR
 PROJECT NO.
 SHEET NO.

 CONST.
 2017
 NH-16 (54)
 45P3

UNOFFICIAL SET NOT FOR

BIDDING



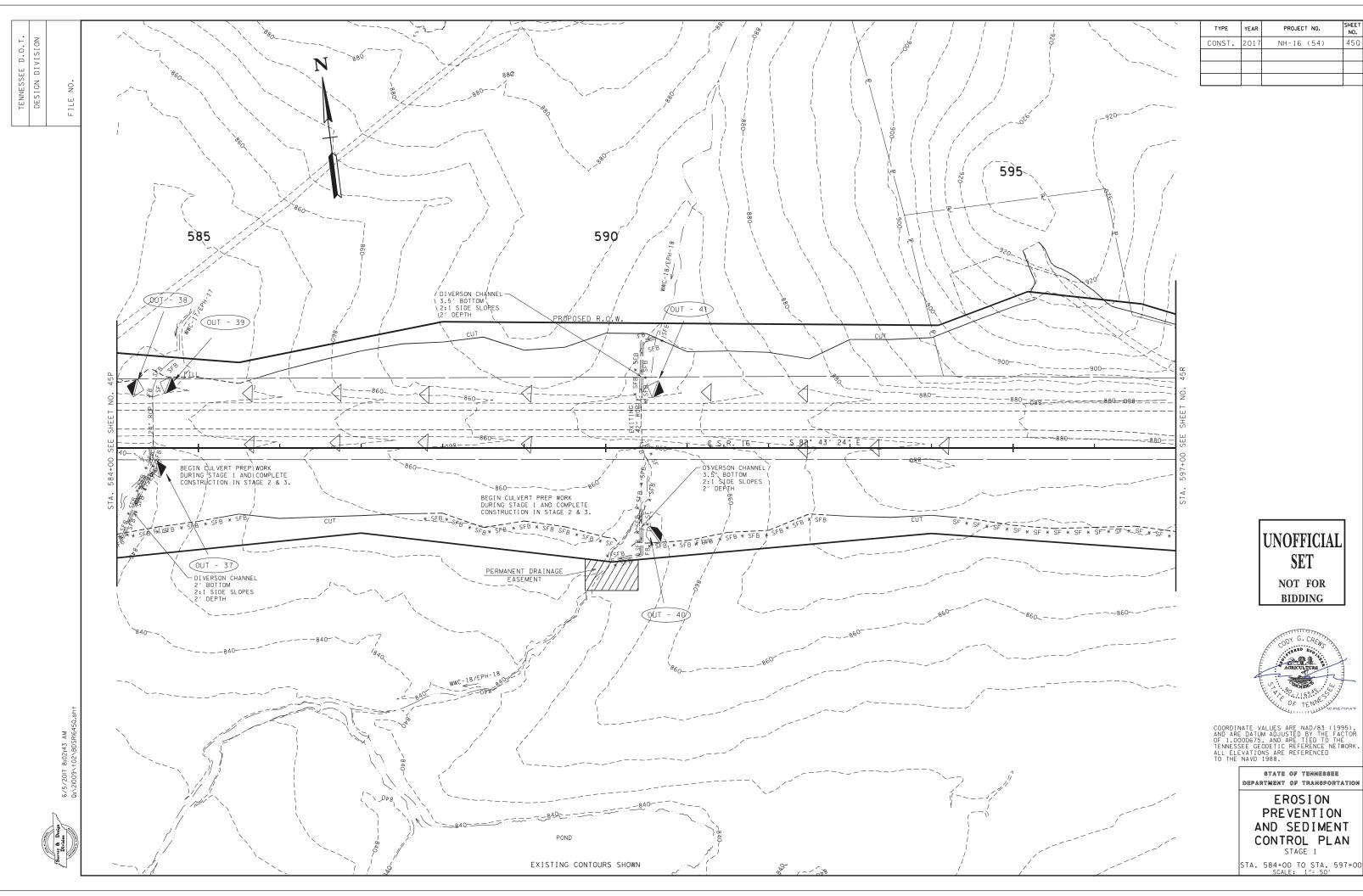
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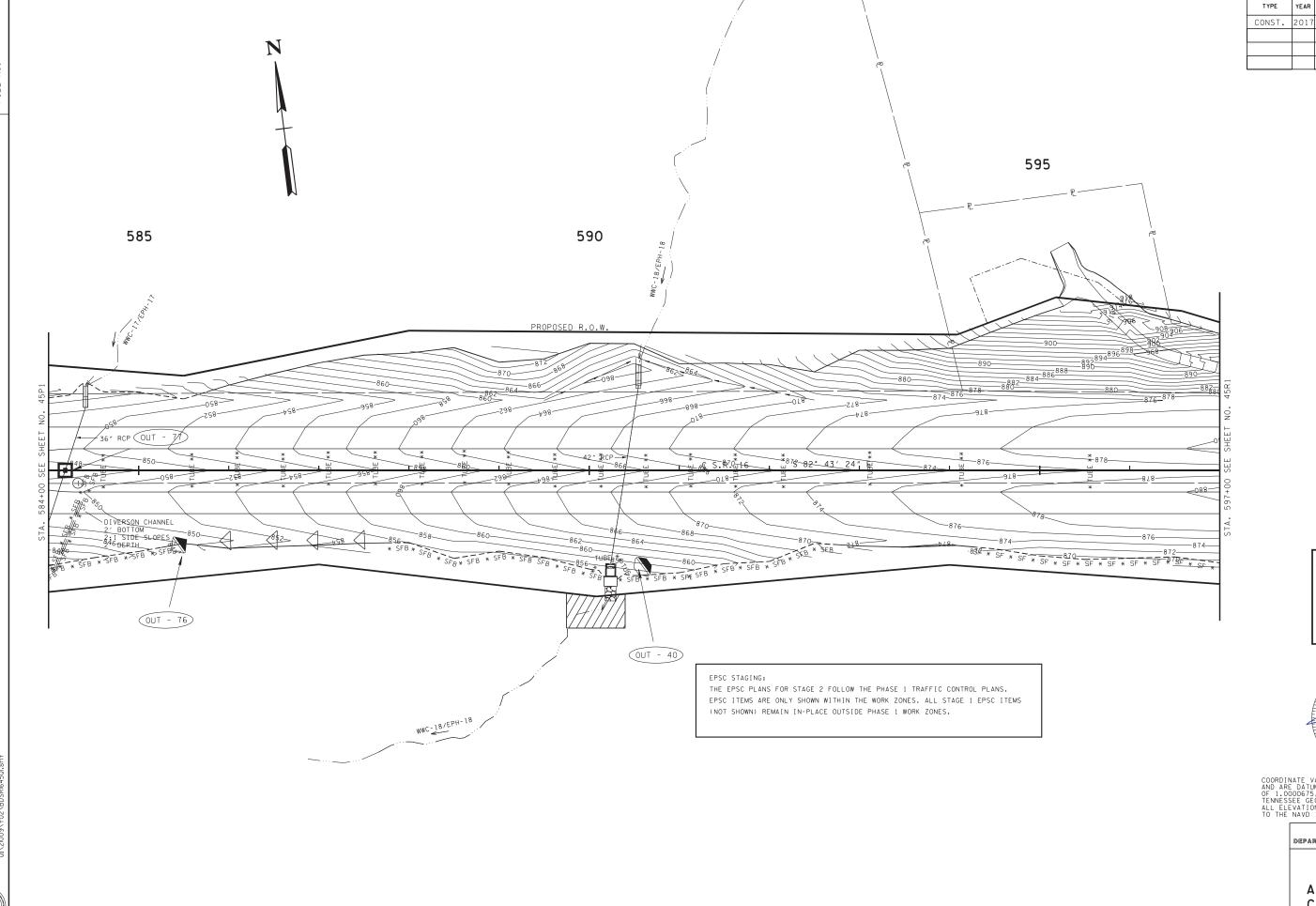
> STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STAGE 4

STA. 571+00 TO STA. 584+00 SCALE: 1"= 50'





PROPOSED CONTOURS SHOWN

YEAR PROJECT NO. SHEET NO.
. 2017 NH-16 (54) 450:

UNOFFICIAL SET NOT FOR

BIDDING

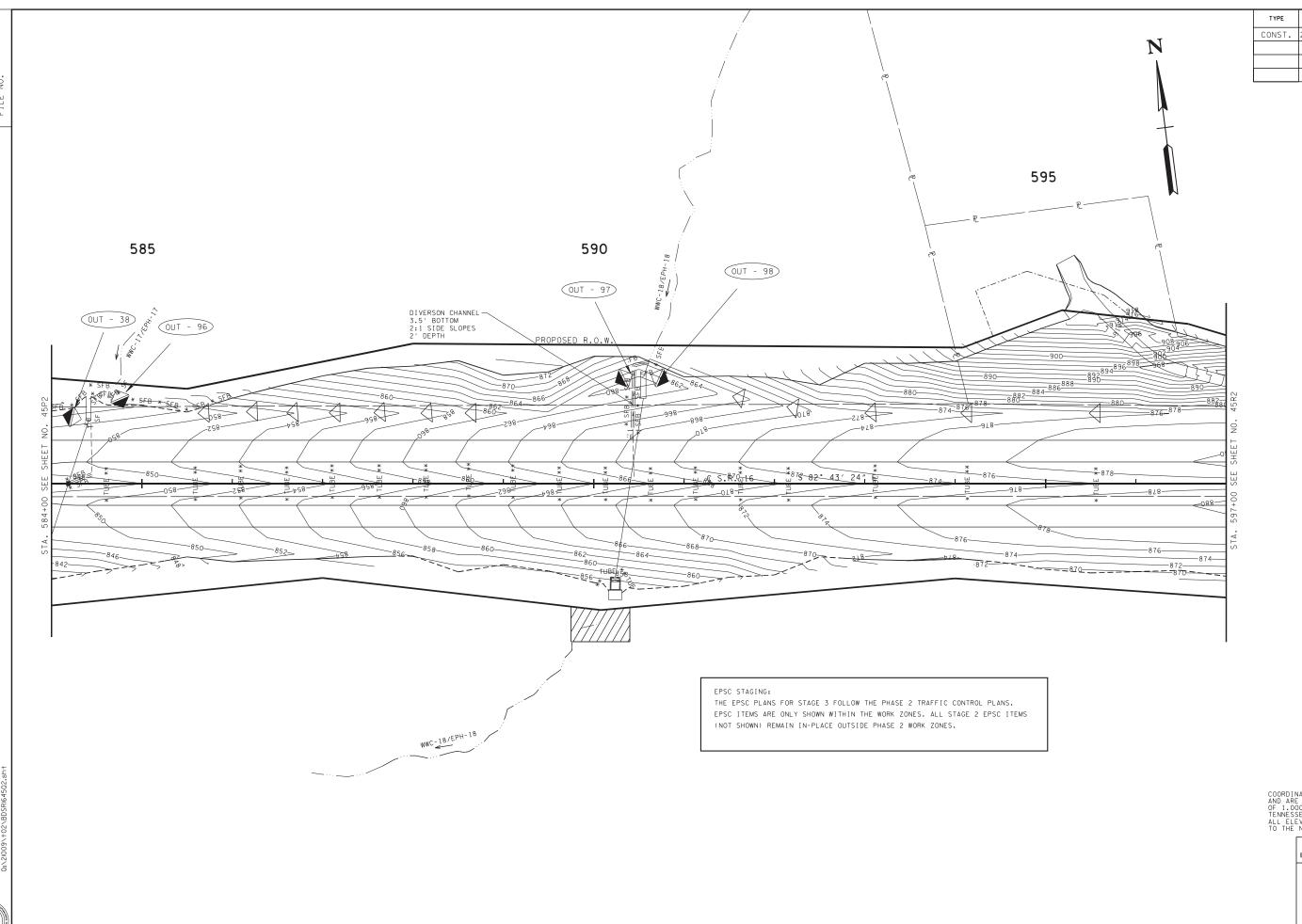


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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN
STAGE 2

STA. 584+00 TO STA. 597+00 SCALE: 1"= 50'



PROPOSED CONTOURS SHOWN

TYPE YEAR PROJECT NO. SHEET NO. CONST. 2017 NH-16 (54) 4502

UNOFFICIAL SET NOT FOR BIDDING

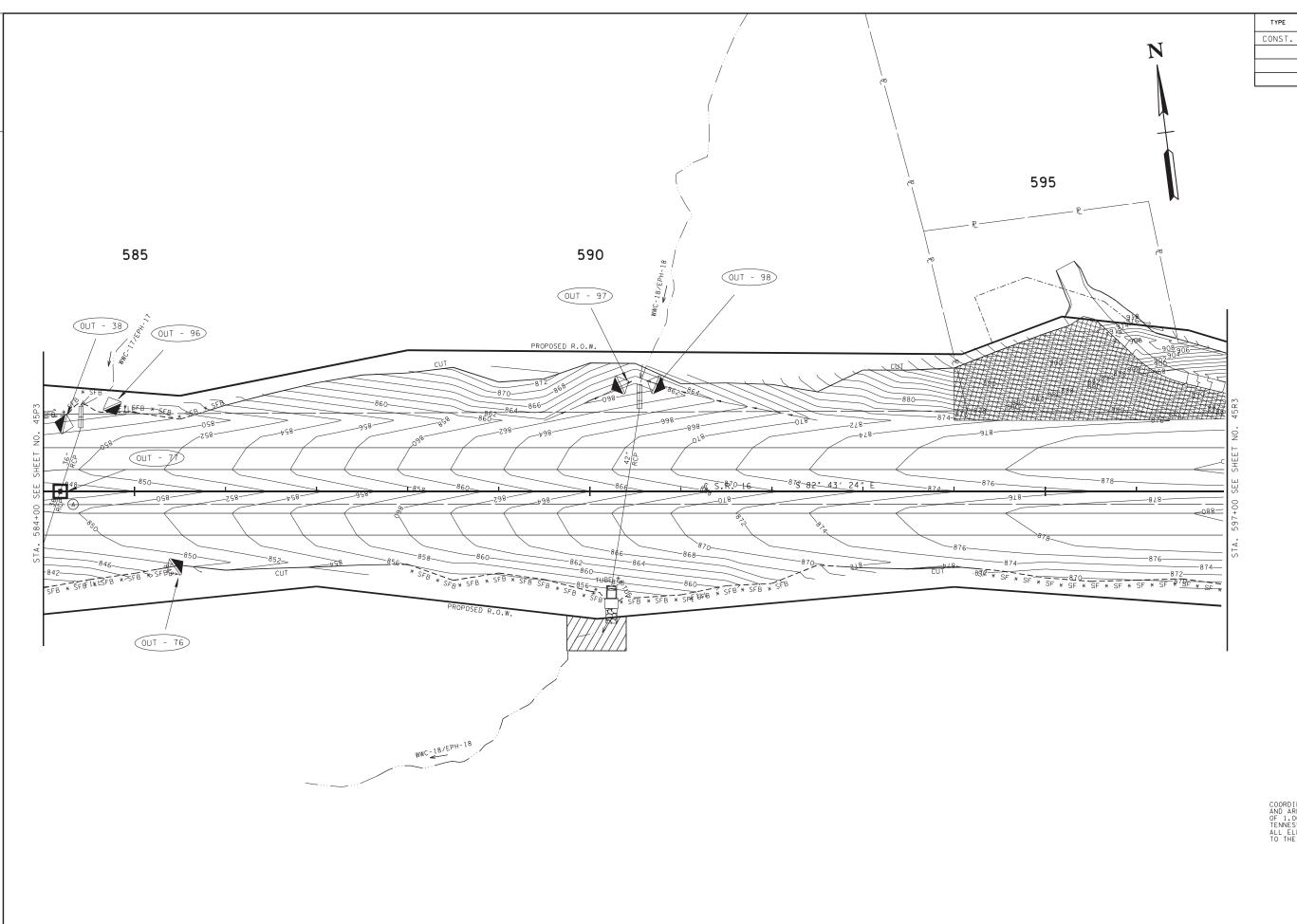


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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN
STAGE 3

STA. 584+00 TO STA. 597+00 SCALE: 1"= 50'



PE YEAR PROJECT NO. SHEET NO. ST. 2017 NH-16 (54) 450.

UNOFFICIAL SET NOT FOR

BIDDING

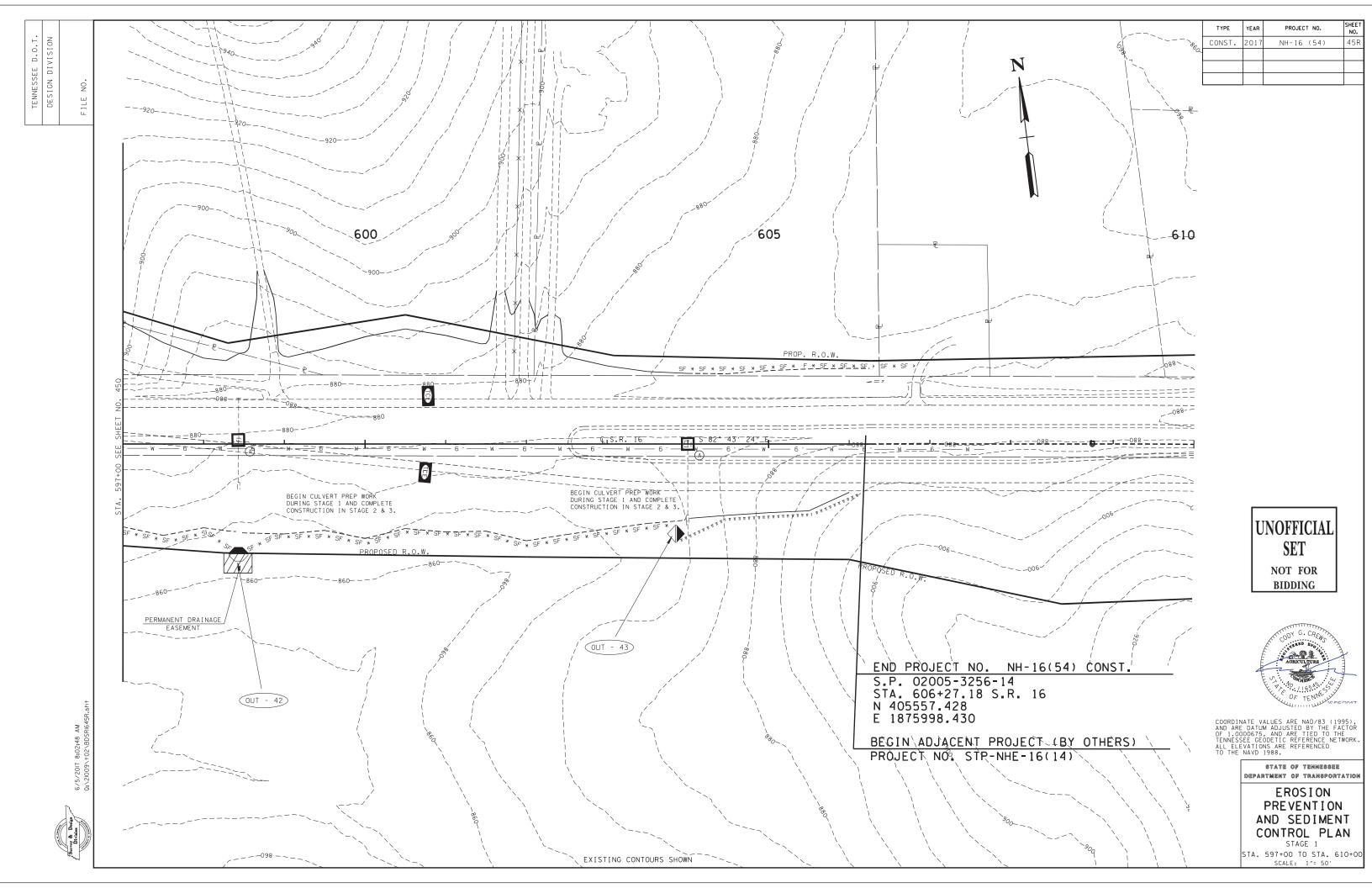


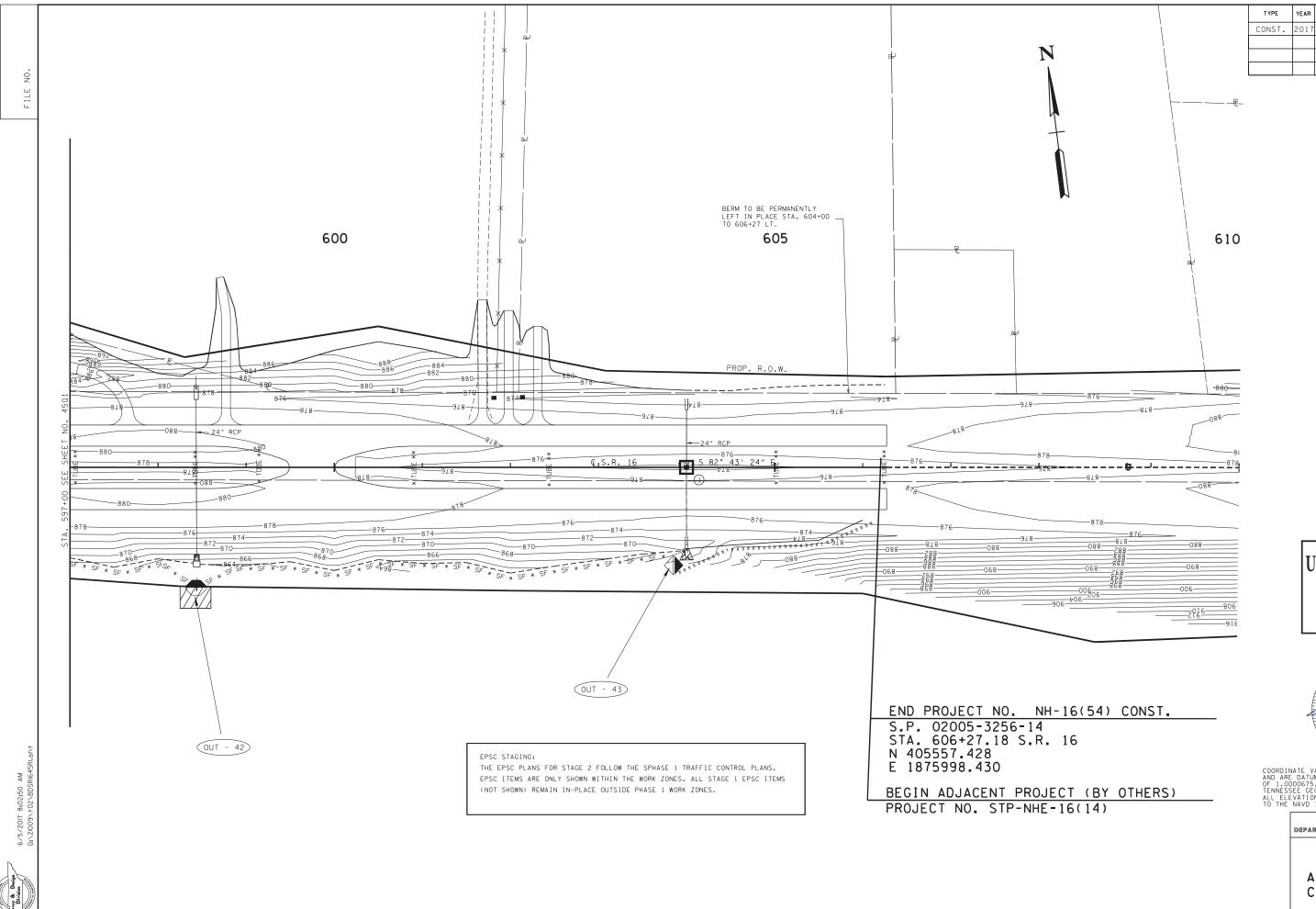
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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STAGE 4 STA. 584+00 TO STA. 597+00 SCALE: 1"= 50'





PROPOSED CONTOURS SHOWN

 YPE
 YEAR
 PROJECT NO.
 SHEET NO.

 NST.
 2017
 NH-16 (54)
 45R1

UNOFFICIAL SET NOT FOR

BIDDING

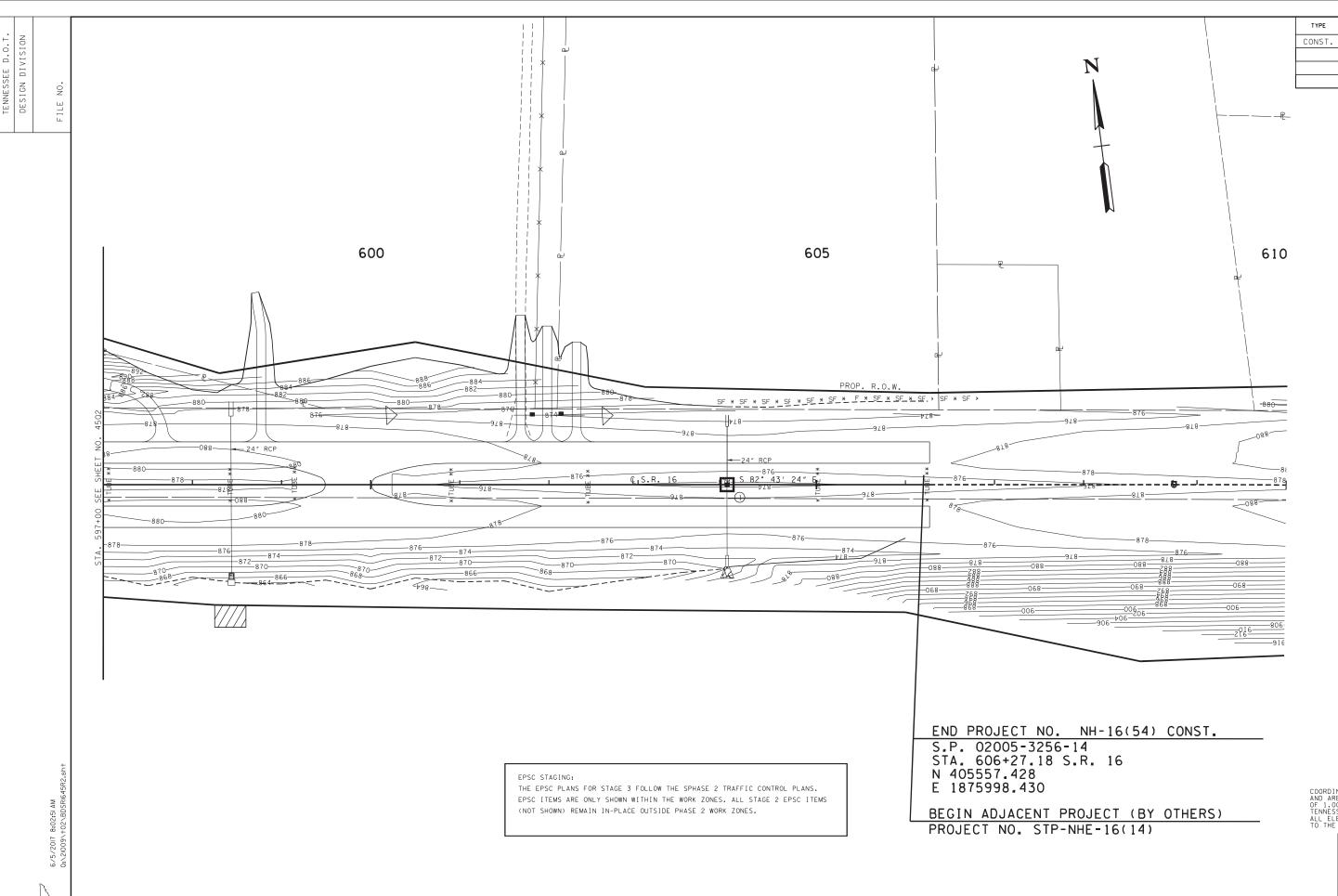


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> STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STAGE 2 STA. 597+00 TO STA. 610+00 SCALE: 1"= 50'



PROJECT NO.

NH-16 (54)

UNOFFICIAL SET NOT FOR

BIDDING



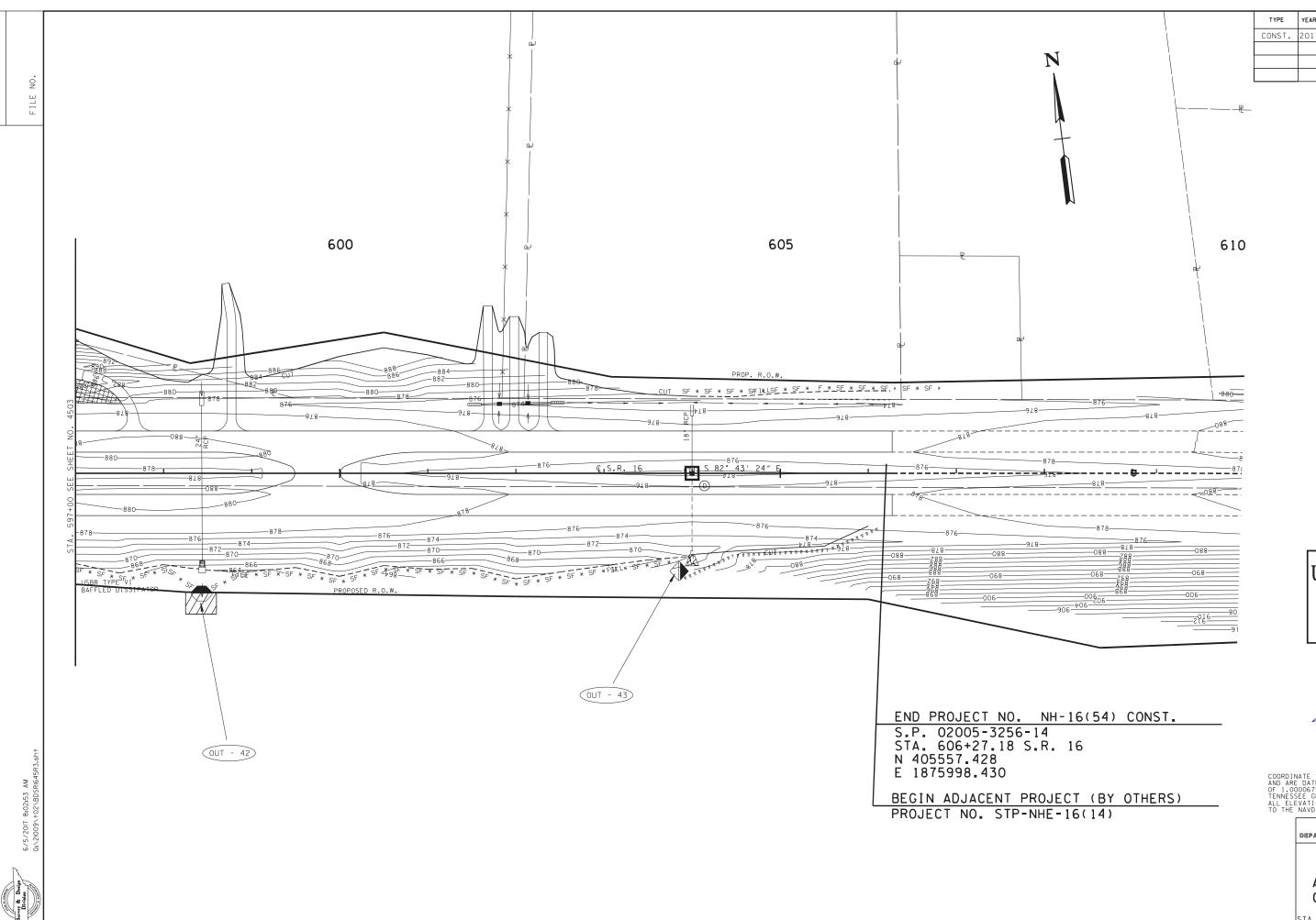
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> STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STAGE 3 STA. 597+00 TO STA. 610+00 SCALE: 1"= 50'

or & Design



TYPE YEAR PROJECT NO. SHEET NO.

ONST. 2017 NH-16 (54) 45R3

UNOFFICIAL SET NOT FOR BIDDING



COORDINATE VALUES ARE NAD/83 (1995), AND ARE DATUM ADJUSTED BY THE FACTOR OF 1.0000675, AND ARE TIED TO THE TENNESSEE GEODETIC REFERENCE NETWORK. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STAGE 4 STA. 597+00 TO STA. 610+00 SCALE: 1"= 50'